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Wilderness Management Plan

Draft

Table Rock Wilderness - Oregon

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U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

Salem District Office
1717 Fabry Road SE
P.O. Box 3227
Salem, Oregon 97302

IN REPLY REFER TO

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Salem District Office
1717 Fabry Road S.E.
P.O. Box 3227
Salem, Oregon 97302

January 10, 1986

Enclosed for your review and comment is the draft Table Rock Wilderness Management Plan. Bureau policy requires that a management plan be prepared for all designated wilderness areas on public lands. This plan will establish the management direction and objectives, as well as a sequence for implementing the identified management actions.

Parts I through V of the draft plan offer background information on wilderness management and the Table Rock Wilderness. Part VI is the Wilderness Management Program. The Environmental Assessment, Part VIII describes the management action we propose and offers three alternatives.

There will be a 45 day public comment period, that will begin shortly after you receive this draft. Early in the comment period we will schedule a public meeting at the district office to explain the environmental assessment, the proposed action and alternatives. After that we will welcome your written comments for inclusion in the management plan.

You will be notified of the dates for the public meeting and comment period as soon as they are set.

Thank you for your interest in the Table Rock Wilderness.

Sincerely yours,

Richard A. Whitley

Area Manager, Clackamas Resource Area

Sincerely yours,

Joseph R. Rabe

District Manager, Salem District

READEX FICHE

Draft

Wilderness Management Plan

For The

Table Rock Wilderness

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

SALEM DISTRICT - OREGON

Recommended by: Scott S. Abdon

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Outdoor Recreation Planner, Salem District

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William G. Leavell
State Director, Oregon

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Part I Introduction

Many of the diverse wildernesses out of which we have hammered America are already gone; hence in any practical program the unit areas to be preserved must vary greatly in size and degree of wildness.

Aldo Leopold
from *"Remnants" of Wilderness*

Background

Table Rock Wilderness (TRW) was designated a component of the National Wilderness Preservation System on June 26, 1984, when President Ronald Reagan signed into law the Oregon Wilderness Act of 1984 (Public Law 98-328; see Appendix A for a complete text). No other area under Bureau of Land Management (BLM) jurisdiction was designated as wilderness in this legislation and TRW is the only BLM-managed wilderness area within Salem District boundaries.

Plan Purpose

This wilderness management plan serves a threefold purpose. First, it provides management direction by establishing clear management objectives and prescribing a comprehensive set of compatible management actions which will, when implemented, provide TRW with the overall blend of resource protection and public visitation intended by Congress. Second, it sets forth a general sequence for implementing the identified management actions. And third, it fulfills the Bureau policy requirement that a management plan be prepared for a designated wilderness area on public lands.

This plan is designed to guide TRW management for the 10-year period 1986 through 1995. It culminates more than a year of intensive study and dialogue in the matter of managing the area. Plan monitoring will be conducted every two years from the date of approval to determine whether or not the management goals and objectives are being met. Management actions will also be monitored, following implementation, to determine their effectiveness in meeting the administrative mandates set forth in Public Law 98-328. If an action (or set of actions) is clearly not managerially effective and change is needed, alternatives will be analyzed and a new action proposed and implemented following public review. Through continuous monitoring, a dynamic management program can be provided to ensure the area's resources and wilderness character are preserved and protected for the long-term enjoyment of visitors.

Plan Organization

A logical progression of wilderness management information, arranged from the general to the specific, is presented in this nine-part document. Basic management direction, in the form of broadly stated national wilderness management goals, is discussed in Part II. An overall TRW management strategy, based on the "Limits of Acceptable Change" system for managing wilderness conditions and on zonation (a Trailless Zone and a Trailed Zone), is presented in Part III. The wilderness elements considered in this plan are listed in Part IV. Zone-specific wilderness management objectives are summarized in Part V. The wilderness management program, the crux of this plan, is presented in Part VI. It is in this part where specific management objectives, current situation and assumptions, management policies, and actions required to resolve identified issues and take advantage of wilderness opportunities are addressed for each wilderness element. A schedule and timetable, describing the order and timing of action implementation is presented in Part VII. An assessment of environmental effects associated with the proposed action and alternatives for management of TRW is located in Part VIII. Cost estimates for implementing the management plan, in terms of both workmonths and dollars, are shown in Part IX.

Area Overview

Location

TRW is located in the western foothills of the Cascade Mountains Physiographic Province in Clackamas County, Oregon. The designated boundaries of TRW lie completely within Township 7 South, Ranges 3 and 4 East, Willamette Meridian. Molalla, with a population of 3,100, is the largest city near TRW and lies 19 miles by road to the northwest. Also located near TRW is the unincorporated community of Glen Avon. Oregon's three largest population centers, Portland, Eugene and Salem, are relatively close to TRW. Portland, the largest metropolitan area in the State, is only 40 air miles to the northwest. Eugene, the second largest metropolitan area, is 75 air miles to the southwest. And Salem, the State's capital and third largest metropolitan area, is only 30 air miles to the west. The location and vicinity maps shown in Figure 1 illustrate where TRW is situated in relation to the State and Willamette Valley region.

Other designated components of the National Wilderness Preservation System which are located within Salem District boundaries are shown in Figure 1a. They include Bull of the Woods, Columbia, Drift Creek, Menagerie, Middle Santiam, Mt. Jefferson, Mt. Hood and Salmon-Huckleberry Wildernesses. All eight are under the jurisdiction of the U.S. Forest Service.

Access

From State Highway 211 on the eastern side of downtown Molalla, TRW is reached by traveling generally southward 7 miles on Mathias, South Feyrer Park and South Dickey Prairie Roads to Glen Avon, and then another 12 miles on South Molalla Road to its junction with the Middle Fork and Copper Creek Roads. Old Bridge Trailhead, lowest and westernmost of TRW's three trailheads, is located at this road junction. The other trailheads, Table Rock and Peachuck Lookout (also Pechuck), are also reached from this point. Table Rock Trailhead, located near the end of Table Rock Road is reached by traveling 8 miles up the Middle Fork and Table Rock Roads. Peachuck Lookout Trailhead, located near the old Peachuck Lookout station, is reached by traveling just over 9 miles up Copper Creek Road and Crown Zellerbach Corporation's 8100 road system (private). The access map shown in Figure 2 illustrates how to reach TRW and existing trailheads from Molalla.

Boundary

For most of its length, the TRW boundary either parallels roads and streams or follows property lines. Where TRW lies adjacent to high standard logging roads, the boundary is located 100 feet (horizontal distance) from the roads' centerlines. Along Camp Creek and the Table Rock Fork, the boundary is located on the 100-year floodlines. Figure 3 shows the boundary map as submitted to the Committee on Energy and Natural Resources, United States Senate, and the Committee on Interior and Insular Affairs, House of Representatives, as required by Section 5(a) of the Act designating the area.

Size and Ownership

The area within TRW's exterior boundary, including a privately owned 80-acre parcel, totals 5,750 acres. The owner of record of the sole inholding is Brazier Forest Products, a Molalla-based firm. Of the 5,670 acres presently under BLM jurisdiction, 60 percent are Public Domain lands and 40 percent are revested Oregon and California Railroad grant lands.

Unique Attributes

TRW is the last large block of undeveloped forest land in the Molalla River drainage. Its steep, rugged terrain, high relief features and notable vegetative variety combine to create a unique natural setting in an otherwise heavily manipulated forest environment. Roughly two-thirds of the area's watershed is

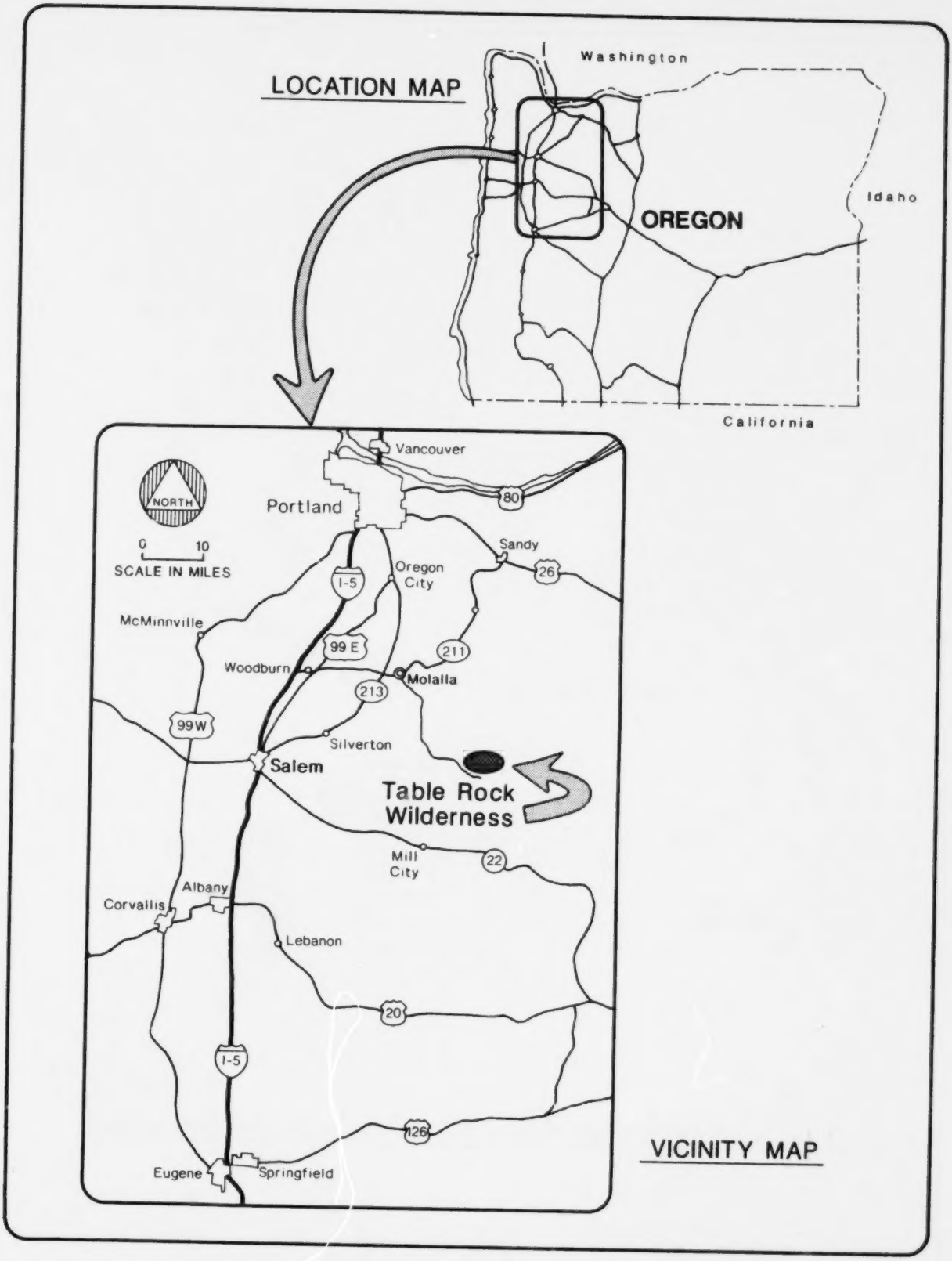
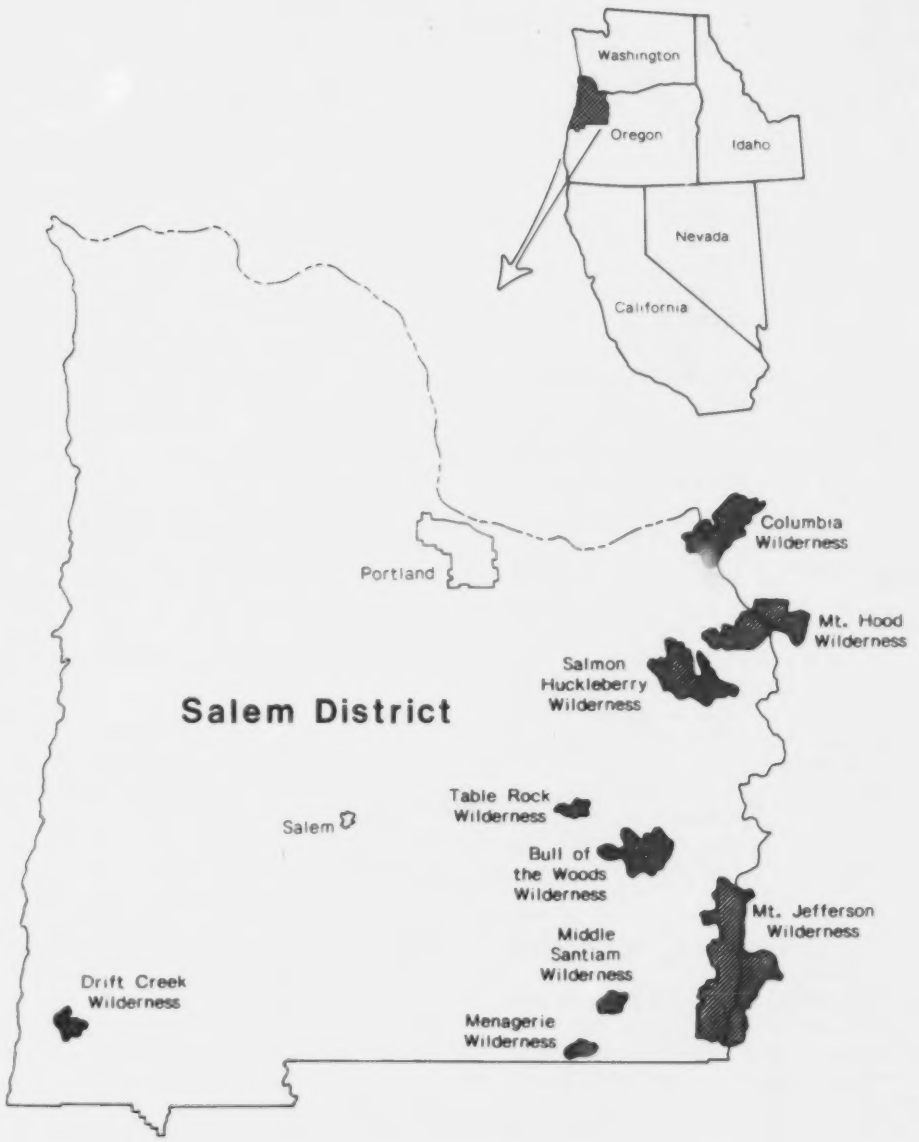

LOCATION MAP
Washington
OREGON
Idaho
California
Vancouver
NORTH
Portland
0 10
SCALE IN MILES
80
Sandy
26
I-5
Oregon City
McMinnville
99 E
211
Woodburn
Molalla
213
99W
Silverton
Salem
Table Rock Wilderness
Mill City
22
Albany
Corvallis
Lebanon
20
I-5
126
Eugene
Springfield
VICINITY MAP

Figure 1



Designated Wilderness Areas Within Salem District Boundaries

Figure 1a

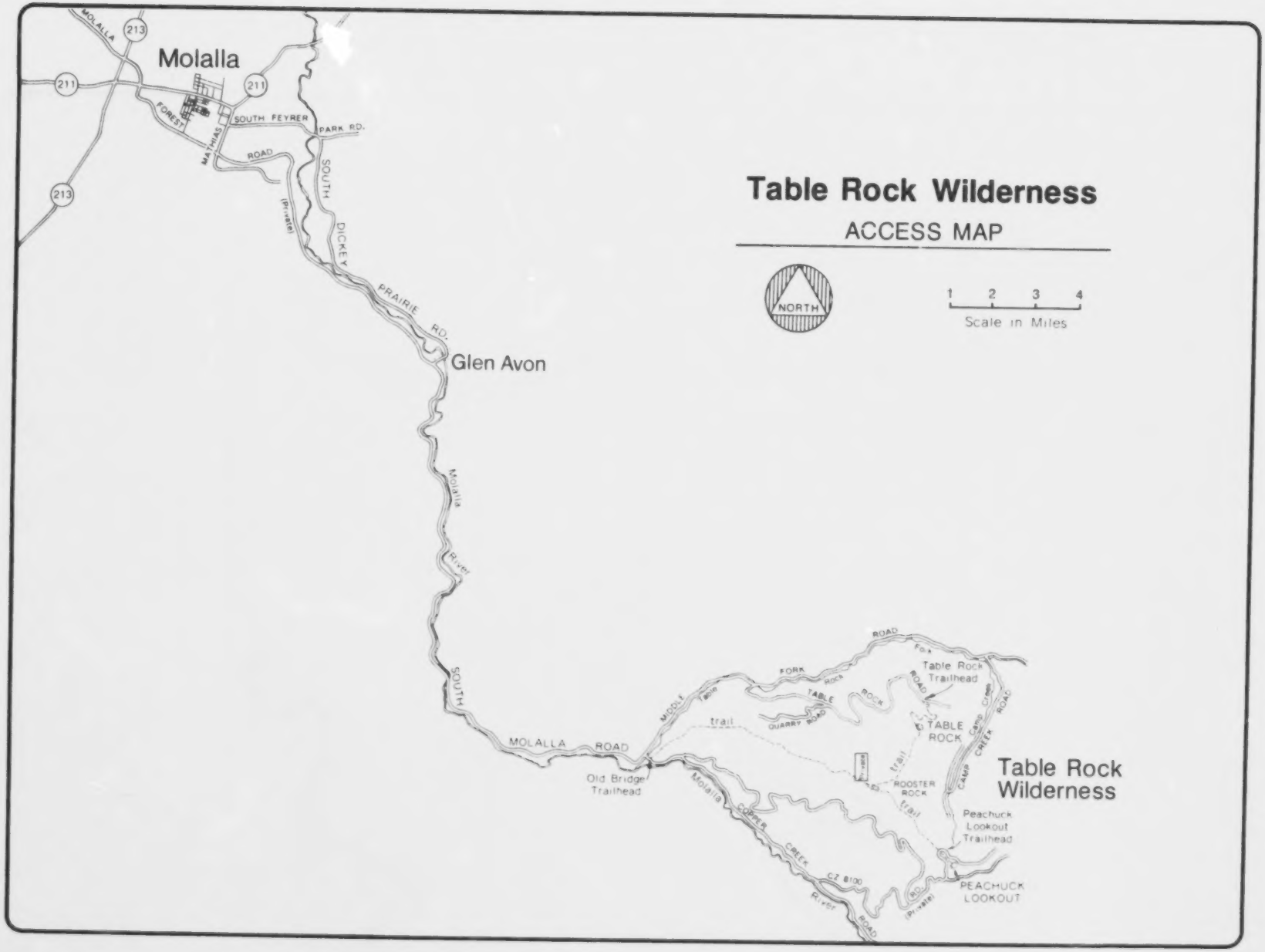
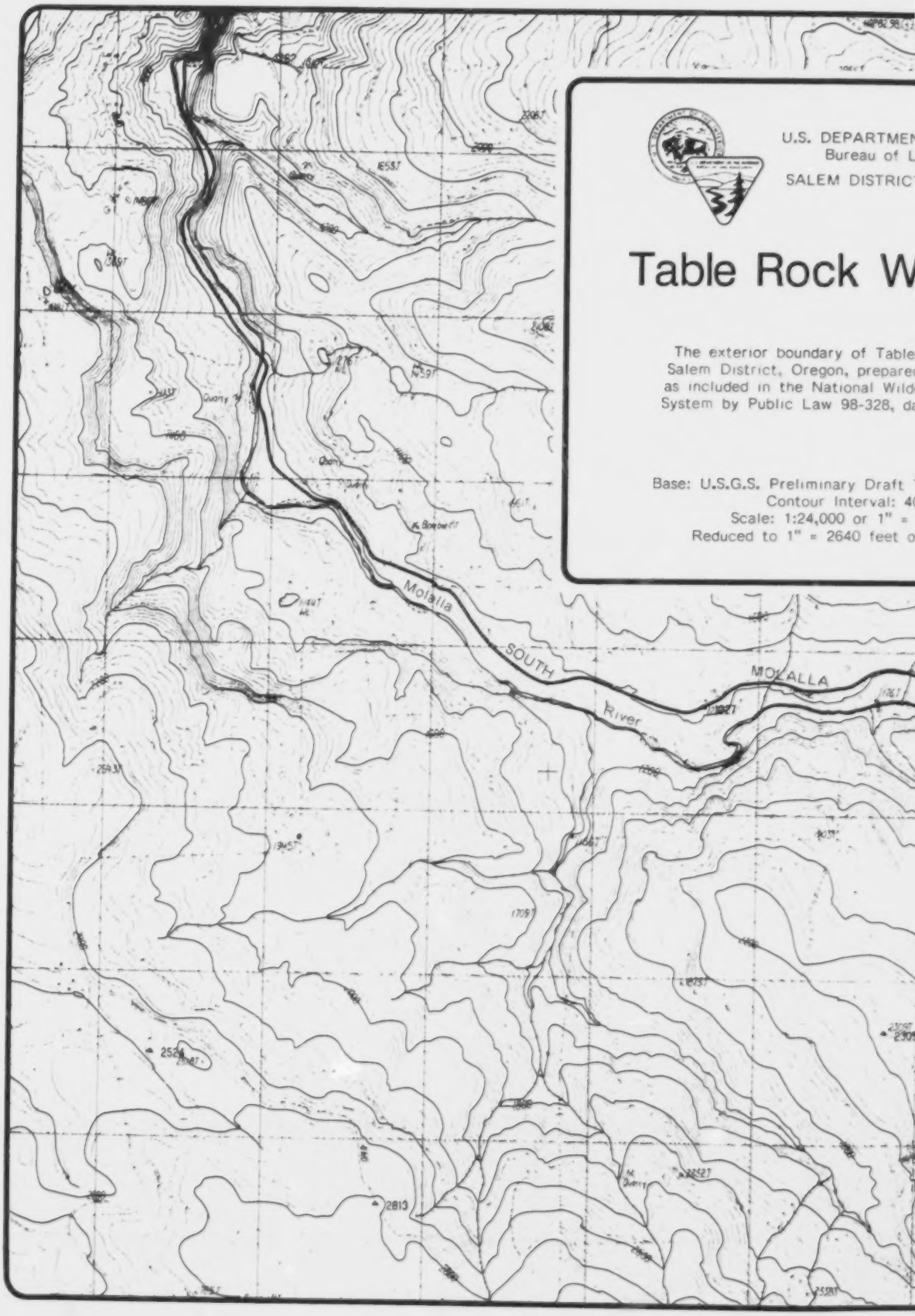
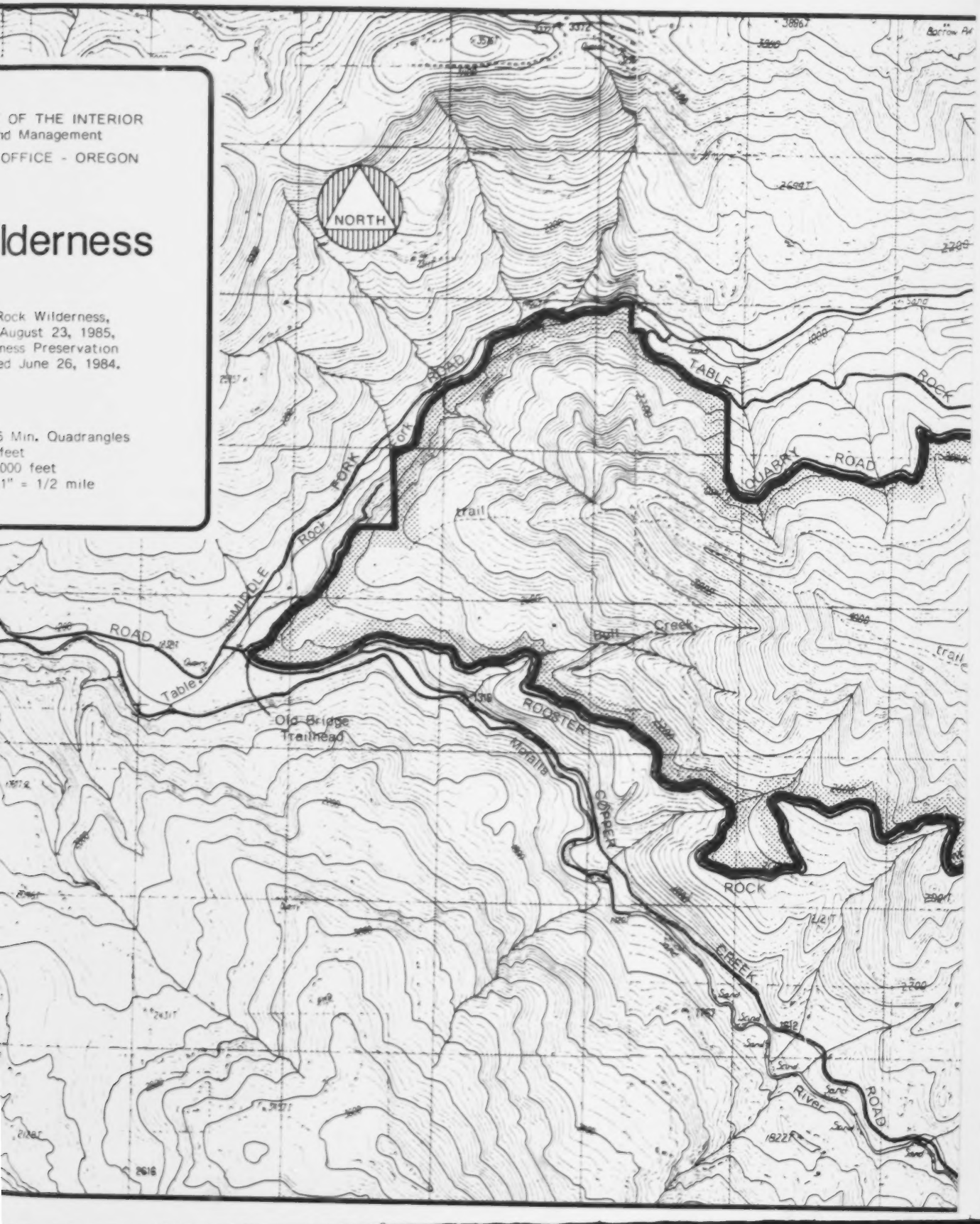


Table Rock Wilderness
ACCESS MAP
NORTH
1 2 3 4
Scale in Miles
Molalla
Glen Avon
Table Rock Wilderness
MOLALLA
213
211
SOUTH FEYRER PARK RD.
FOREST
MATTHIAS
ROAD
(Private)
SOUTH DICKEY PRAIRIE RD.
Molalla River
SOUTH MOLALLA ROAD
Old Bridge Trailhead
Molalla COPPER CREEK
CZ 8100
ROAD
(Private)
MIDDLE FORK TABLE ROCK ROAD
QUARRY ROAD
Table Rock Trailhead
trail
TABLE ROCK
ROOSTER ROCK
trail
trail
CASTO CREEK ROAD
Peachuck Lookout Trailhead
PEACHUCK LOOKOUT

Figure 2


U.S. DEPARTMEN
Bureau of L
SALEM DISTRICT
Table Rock W
The exterior boundary of Table
Salem District, Oregon, prepare
as included in the National Wild
System by Public Law 98-328, da
Base: U.S.G.S. Preliminary Draft
Contour Interval: 4
Scale: 1:24,000 or 1" =
Reduced to 1" = 2640 feet
Molalla
SOUTH
River
MOLALLA
2813



OF THE INTERIOR
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lderness

Rock Wilderness,
August 23, 1985,
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5 Min. Quadrangles
feet
000 feet
1" = 1/2 mile

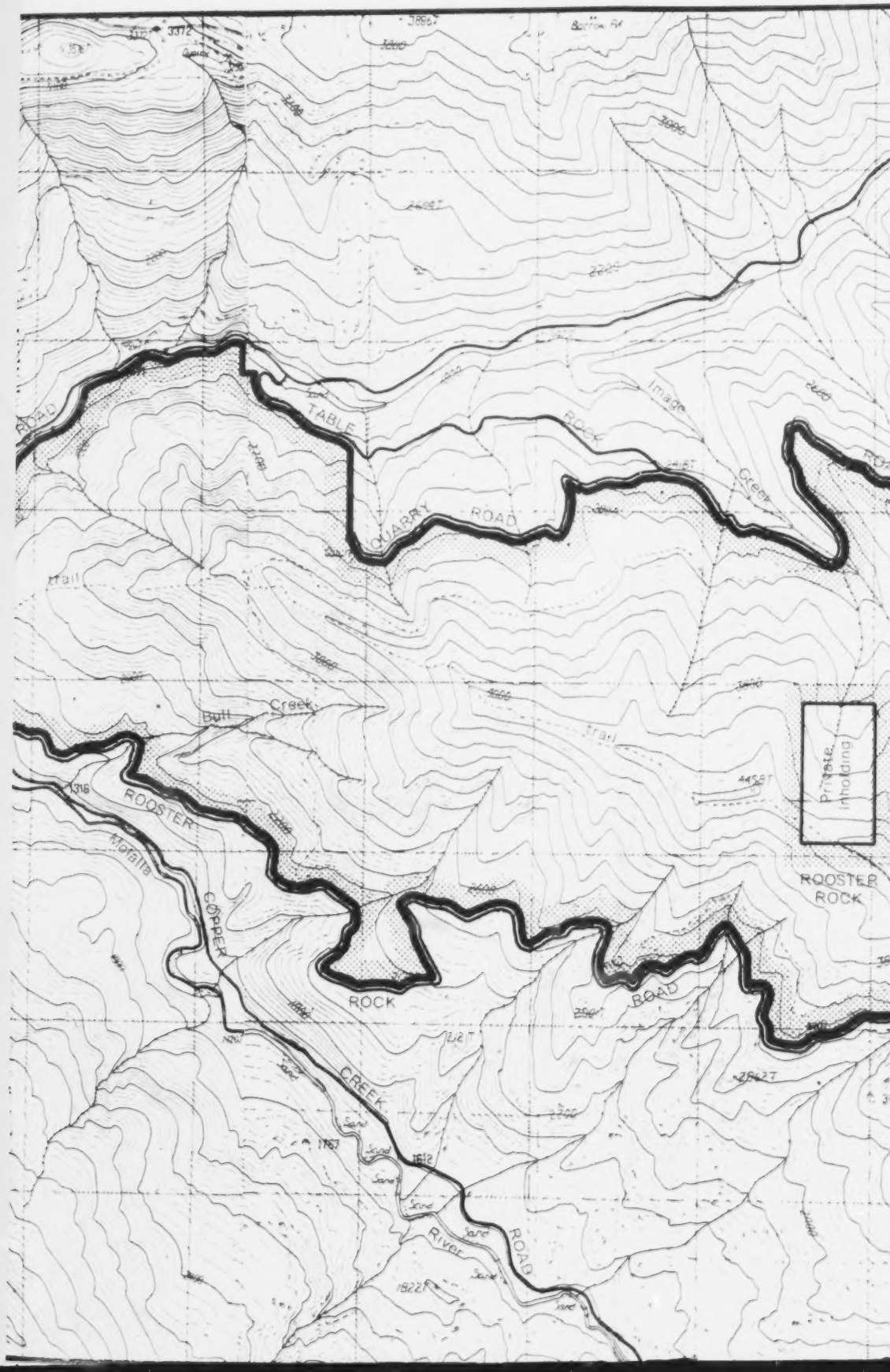


TABLE ROCK ROAD
QUARRY ROAD
Bull Creek
Trail
ROOSTER Moraine
COPPER CREEK
ROCK ROAD
CREEK
River
ROAD
Private Inholding
ROOSTER ROCK
Image
Creek
Trail
Sand
Sand
Sand
Sand
Sand
Sand
1316
1767
1612
1822'
2862'
2862'
2862

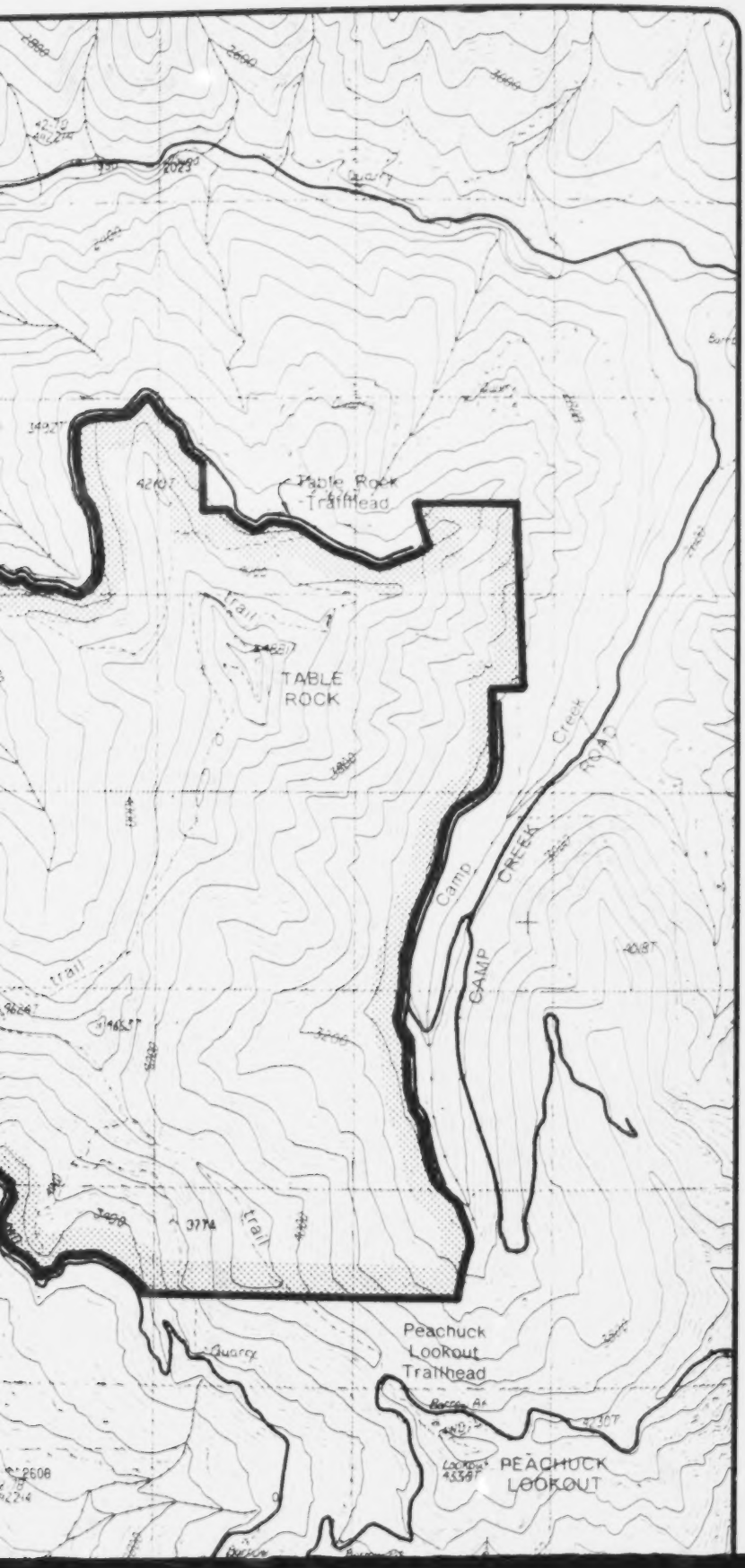


Table Rock
Trailhead
TABLE
ROCK
Camp
CREEK
ROAD
CAMP
Creek
Trail
Trail
Trail
Quarry
Peachuck
Lookout
Trailhead
PEACHUCK
LOOKOUT

comprised of moderately fragile to severely fragile sites. Shallow to very shallow rocky soils, low soil fertility, steep unstable slopes, excessively drained areas and high susceptibility to slides and erosion contribute to this fragile site condition. In addition, exposed bedrock, talus, slide scarps, sheer cliffs, basaltic rock outcrops and crags are scattered throughout.

The presence of four distinct vegetation zones within a relatively short vertical sequence of geologic features accounts for TRW's great diversity of plant species. Within each zone (alpine, subalpine, montane and foothills), both biotic and topographical plant successional patterns occur, representing unique plant community life cycles. Specialized micro-habitats within three of the four zones support populations of "sensitive" plant species. Sensitive plants are species that could become federally listed as endangered or threatened in the foreseeable future. Within TRW, these sensitive species include: Gorman's Aster, Smooth-leaved Douglasia, Clackamas Iris, Hall's Isopyrum, Shasta Lily, Fringed Pinesap, and Oregon Sullivantia.

TRW is also habitat for the northern spotted owl. Last observed in the area in 1980, this species is listed as "threatened" by the Oregon State Department of Fish and Wildlife. Wildlife listed as threatened by the State of Oregon includes any species which is likely to become endangered within the foreseeable future. Deer and elk winter range, another important wildlife habitat for which the area is known, is located all along TRW's south-facing slopes. These same slopes are also inhabited by an abundant population of blue grouse.

Hiking and horseback riding opportunities exist within TRW. A well established 10-miletrail system extends along prominent ridges in the area. The segment of trail on TRW's main east-west ridgeline is a piece of a once more extensive trail system which connected the Willamette Valley with eastern Oregon. Written historic accounts, including the General Land Office survey notes of 1882, and other evidence, indicate use of the trail by both aboriginal peoples and early Euro-Americans. Because of its historical use, this trail segment has been determined eligible for inclusion in the National Register of Historic Places. Another trail segment extends to the top of Table Rock, the most prominent geologic feature in the Molalla River drainage. On a clear day, from the top of Table Rock, visitors can view spectacular high Cascade Range scenery including Mount Rainier, Mt. St. Helens, and Mt. Adams in Washington State; Mt. Hood, Mt. Jefferson, Three Fingered Jack, Mt. Washington, and North, Middle and South Sisters in Oregon; and Mt. Shasta in northern California. The three existing trailheads described under Access are the portals to TRW's developed trail system.

General Management Situation

With the exception of several mineral leases, there are no mining claims, grazing permits/leases or other use authorizations within TRW. With respect to the mineral leases, there are six of record, all oil and gas, which wholly or partially cover lands within designated wilderness boundaries. All of these leases were issued four years prior to TRW legislation, and none carried a "no surface occupancy" stipulation for exploration operations.

Brazier Forest Products owns an 80-acre parcel in Section 16, T. 7 S., R. 4 E., W. M., TRW's sole inholding. At present, there is no developed access to this non-Federal parcel.

A seven-mile "jeep road," bulldozed in 1970 to expedite the survey and construction of the Table Rock Road system, extends from Rooster Rock Road on TRW's southern boundary, over the main east-west trending ridgeline to a point just east of the Table Rock Trailhead on TRW's northern boundary. To preclude use of motorized vehicles on portions of this fast-deteriorating travel route, the north end was permanently blocked in 1984 shortly after passage of the Act designating the area. Vehicular access to the jeep road's south end was obliterated when Rooster Rock Road was constructed. Though never "put to bed" formally, after 15 years without use, the jeep road is strewn with fallen trees, cut banks are eroding to their natural angle of repose, and vegetation indigenous to the area is reestablishing itself throughout. This route is occasionally used by hikers and horseback riders as a means to traverse the otherwise steep and rugged terrain not accessible via the established trail system.

Surface water, though plentiful near TRW's periphery in spring and early summer, is a scarce commodity during the mid-summer through fall period, particularly in the area's interior. The headwaters of Image Creek, Bull Creek and an unnamed tributary to Table Rock Fork, the only known perennial streams in TRW, provide a reliable source of water. Along the main ridgelines, where most of the established trail system lies, there is virtually no surface water available at any time of the year (the sole exception is that which can be obtained from the annual snowpack before mid-July).

A wildfire in TRW's fuel type would be a low-intensity ground fire with occasional flare ups. The rate of fire spread would be fairly slow under normal summer weather conditions. However, under severe fire weather conditions, particularly when dry east winds are involved, a fire within TRW boundaries would likely be very erratic with a high rate

of spread and long-range spotting. This situation would pose a considerable hazard to both wilderness and non-wilderness lands and resources.

Several sections of the existing trail system are poorly located with long stretches of grade three to four times the recommended design standard. The trail tread on those grades is also substandard. Most notable of these "weak links" to an otherwise good trail system are the 2.5-mile section ascending the steep-nosed ridgeline eastward from the Old Bridge Trailhead and the 1.5-mile section extending from Rooster Rock northward into the headwaters of Image Creek, along the prominent saddle between Rooster Rock and Table Rock and up the steep-nosed ridgeline to its junction with the trail ascending Table Rock. Hiking and horseback riding on these particular sections are difficult at best, and trail maintenance is cosmetic only, with no long-term benefits. Another section of the developed trail system is avoided by horseback riders. On the north slope of Table Rock, where a section of the existing trail traverses a large talus, horse use is nil because of the difficulty riders encounter crossing the poor trail tread.

Even with its proximity to the State's three largest metropolitan areas, use of TRW has been low compared to other wilderness areas in the region. Its newness, small size and lack of comparable renown contributes to the current visitation rate (500 visits in 1985). As word of TRW's existence spreads, as more people learn of its unique attributes, and as BLM implements the management program presented in this plan, use will undoubtedly increase. With few exceptions, visitors seldom venture far from the area's "Trailed Zone" (as identified in Part III). Narrow ridgelines, very steep slopes, rough terrain and thick vegetative cover are barriers to cross-country travel and relegate most visitors to the developed trail system.

Day-to-day management of TRW is carried out by the staff of the Clackamas Resource Area with support from the Division of Resources and Division of Operations staff, headquartered at BLM's Salem District Office.

Part II Wilderness Management Goals

The management objectives summarized in Part V and the management actions presented in Part VI of this plan are designed to attain the following four goals which currently guide BLM's wilderness management program.

- To provide for the long-term protection and preservation of the area's wilderness character under a principle of non-degradation. The area's natural condition, opportunities for solitude, opportunities for primitive and unconfined types of recreation, and any ecological, geological, or other features of scientific, educational, scenic, or historical value present will be managed so that they will remain unimpaired.

- To manage the wilderness area for the use and enjoyment of visitors in a manner that will leave the area unimpaired for future use and enjoyment as wilderness. The wilderness resource will be dominant in all management decisions where a choice must be made between preservation of wilderness character and visitor use.

- To manage the area using the minimum tool, equipment, or structure necessary to successfully, safely, and economically accomplish the objective. The chosen tool, equipment, or structure should be one that least degrades wilderness values temporarily or permanently. Management will seek to preserve spontaneity of use and as much freedom from regulation as possible.

- To manage non-comforming but accepted uses permitted by the Wilderness Act and subsequent laws in a manner that will prevent unnecessary or undue degradation of the area's wilderness character. Nonconforming uses are the exception rather than the rule; therefore, emphasis is placed on maintaining wilderness character.

Part III Wilderness Management Strategy

The Limits of Acceptable Change (LAC) system, a nine-step process for establishing acceptable and appropriate resource and social conditions in a recreation setting, will govern the management strategy to be applied within TRW. The primary emphasis of the LAC system is on the conditions desired, rather than on how much use or abuse an area can tolerate. The management challenge is not one of how to prevent any human-induced change to the physical, biological or social settings within TRW, but rather one of deciding how much change will be allowed to occur, where, and what management actions are needed to control it. Once in place and functioning, the mechanics of the LAC system can alert BLM to unacceptable change within TRW before it is too late to react. As a management tool, LAC is designed to be the foundation for the long-term protection and preservation of TRW's wilderness character, flexible enough to allow for site specific situations, cost effective, accountable, and a perfect vehicle for public participation in the wilderness management planning process.

To augment the LAC system for wilderness planning, TRW is divided into two very distinct management zones. The first, a "Trailless Zone," covers all of the unmodified natural environment within wilderness boundaries which is not influenced by the existence or use of the developed trail system and old jeep road. Obviously, the trailless acreage constitutes, by far, the bulk of the planning area. The second, a "Trailed Zone," covers all wilderness acreage traversed by the developed trail system and old jeep road. Included in the Trailed Zone is acreage influenced by these routes and their use by wilderness visitors. Compared to the size of the trailless acreage, the linear Trailed Zone makes up a very small proportion of the overall planning area. Figure 4 illustrates the relationship between the Trailed and Trailless Zones.

Key social and physical/biological indicators, such as the average number of party encounters per day and square feet of compacted and barren soil in a given area, will be selected to represent the conditions deemed acceptable and appropriate for the Trailed and Trailless Zones. BLM will establish social and resource-related standards to serve as limits against which change in selected key indicators can be judged. Resource inventories, visitor surveys, studies and research, and monitoring will be the basis for establishing LAC standards. If change exceeds the acceptable limit set for a particular indicator standard, appropriate management actions will be taken to shift from an unacceptable condition to one that is managerially desired. Since the small size, narrow configuration and steep,

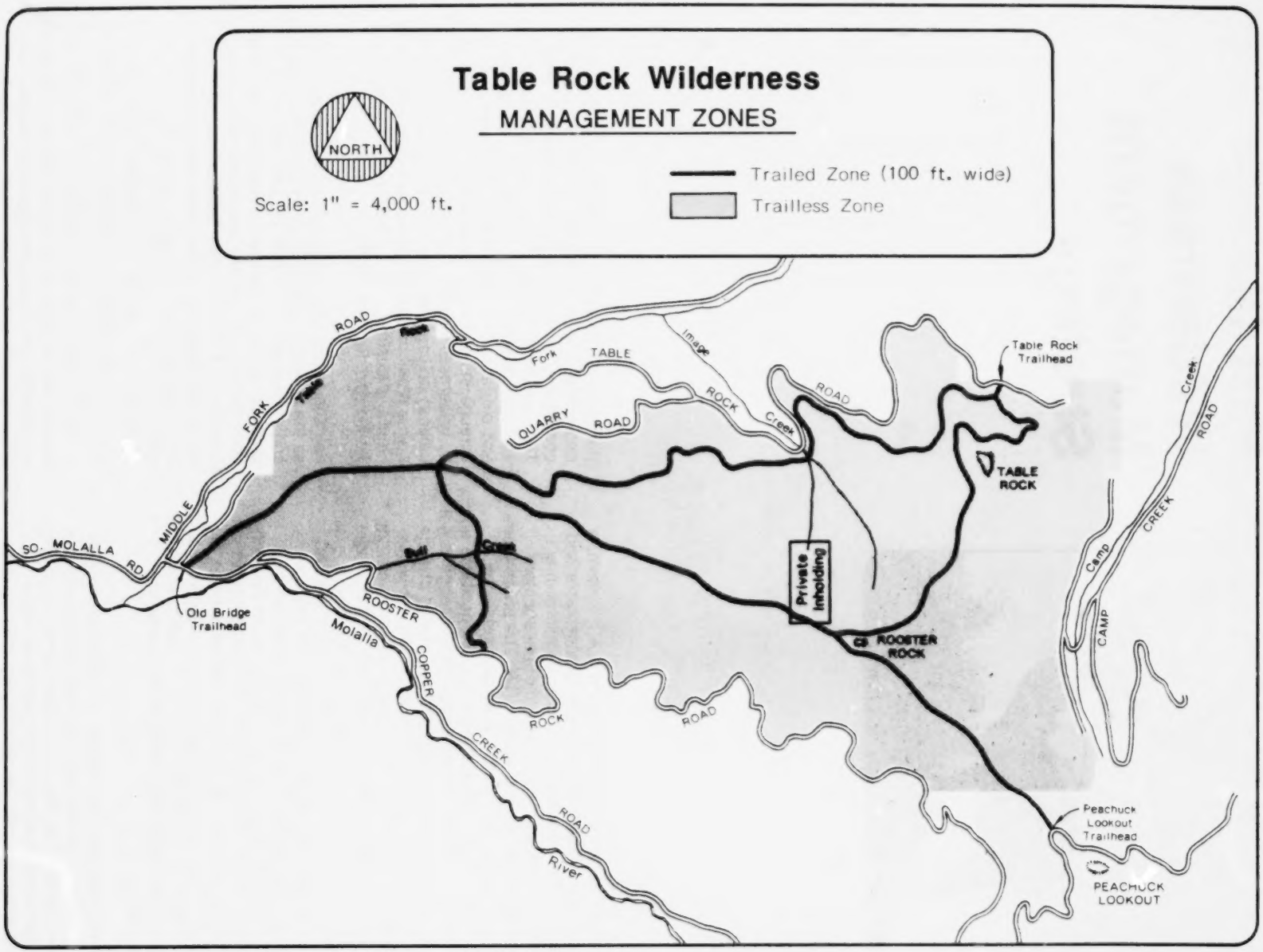


Table Rock Wilderness
MANAGEMENT ZONES
NORTH
Scale: 1" = 4,000 ft.
Trailed Zone (100 ft. wide)
Trailless Zone
SO. MOLALLA RD
MIDDLE FORK ROAD
Table Rock
Fork
TABLE ROCK Creek ROAD
Image
QUARRY ROAD
Table Rock Trailhead
TABLE ROCK
Private Inholding
ROOSTER ROCK
Camp CREEK ROAD
CAMP
Old Bridge Trailhead
Molalla
ROOSTER COPPER ROCK ROAD
CREEK ROAD
River
Peachuck Lookout Trailhead
PEACHUCK LOOKOUT

Figure 4

rugged terrain of TRW precludes, for the most part, physically redistributing use within wilderness boundaries, length of stay limits, use regulations, rationing, etc., may be applied to affected zones to maintain acceptable social and physical/biological resource conditions. However, before such restrictive measures would be considered, an intensive information and education program would be initiated to bring about voluntary compliance with established regulations and an awareness of backcountry etiquette.

The formal LAC planning process will be initiated in Fiscal Year 1986, but all nine steps will not be completed as it will take several years to fully implement LAC procedures. Following field application and through experience gained, the wilderness management objectives summarized in Part V will be modified to incorporate state-of-the-art LAC standards for TRW.

As a preparatory step to LAC system implementation, water quality, soil and vegetative cover in areas where visitation is expected to be high have been monitored. A program for monitoring flow-related water quality trends was developed in October 1984. Water from permanently established collection points will be sampled and analyzed on a scheduled basis so that any changes in quality can be detected. A soil/vegetative cover monitoring program was set up in July 1985. Photographs of permanently established photo plots will be taken annually so that any changes in site condition can be evaluated.

The genesis of the LAC process for TRW will be fully documented and available for review at the Salem District Office.

Part IV Wilderness Elements

Wilderness elements are the physical/biological, social and managerial factors which must be considered in developing a comprehensive management plan for TRW. The following list includes the elements for which the wilderness management program (presented in Part VI) is developed.

Physical/Biological Elements

- Soil
- Water
- Vegetation
- Fish and Wildlife

Social Elements

- Recreation Use
- Other Visitor Use

Managerial Elements

- Signs
- Trails
- Trailheads
- Camp Areas
- Use Authorizations
- Land Tenure Adjustments
- Emergency Services
- Fire
- Minerals
- Cultural Resources
- Information and Education

Part V Summary of Wilderness Management Objectives

Consistent with the overall TRW management strategy, objectives for managing the wilderness elements identified in Part IV are summarized below. These same objectives are repeated in Part VI as a component of the element by element wilderness management program discussion.

Physical/Biological Elements

Soil

- To limit soil displacement and erosion resulting from human activity and authorized uses to a rate that closely approximates the natural erosion process.

- To prevent soil compaction resulting from human activity and authorized uses to progress to a point where natural plant establishment is precluded (trailheads, traditionally used camp areas and developed trail tread in the Trailed Zone excepted).

Water

- To maintain the riparian habitats of streams, springs, ponds and wetlands in their natural state.

- To manage human activity and authorized uses so that the integrity of surface water resources is maintained.

Vegetation

- To maintain plant species indigenous to the area immediately prior to wilderness designation with emphasis on species listed as sensitive.

- To limit natural plant succession interruptions resulting from human activity and authorized uses to a rate which can be recovered in one growing season (trailheads, traditionally used camp areas and developed trail tread in the Trailed Zone excepted).

- To prevent the loss of trees and excessive loss of ground cover at traditionally used camp areas and more heavily used locations within the Trailed Zone.

- To allow forest disease and noxious plant infestations to run their natural cycles so long as they do not cause unacceptable change to the wilderness resource or threaten significant resource values outside wilderness boundaries.

- To leave in place all standing dead vegetation, but allow down and dead vegetative material to be

utilized for campfire purposes in amounts that can be replaced annually through natural accumulation.

- To confine vegetative modification along developed trails to planned trail location and design specifications, including that required for visitor safety.

Fish and Wildlife

- To maintain fish and wildlife species indigenous to the area immediately prior to wilderness designation with emphasis on sensitive, threatened and endangered species.

- To allow natural ecological succession of fish and wildlife populations, including natural infestations of insects, so long as they do not cause unacceptable change to the wilderness resource or threaten significant resource values outside wilderness boundaries.

- To limit habitat alteration resulting from human activity and authorized uses to a rate commensurate with LAC standards set for other physical/biological wilderness elements.

- To permit reestablishment of native fish and wildlife species or establishment of a sensitive, threatened or endangered species so long as the action is for correcting an undesirable condition resulting from human activity or authorized uses.

Social Elements

Recreation Use

To provide opportunities for visitors to experience solitude and to participate in primitive and unconfined types of recreation activities that are consistent with preservation of wilderness character.

Other Visitor Use

To permit visitation and use for purposes other than recreation, including monitoring, research and scientific study, so long as planned activities are compatible with other wilderness management objectives and leave the area unimpaired for future use and enjoyment as wilderness.

Managerial Elements

Signs

- To limit provision of regulatory and informational signs to trailheads and locations where their placement is absolutely necessary to protect specific resource values or for visitor safety.

- To provide directional signs at trailheads and trail junctions only.

Trails

- To provide and manage a developed trail system which allows visitors an opportunity to test hiking/horseback riding skills and experience a sensation of physical exertion and feeling of accomplishment.

- To minimize the establishment of impromptu footpaths in the Trailless Zone created by excessive use of certain cross-country routes.

- To design and construct new trail segments and relocated portions of the existing developed trail system using state-of-the-art hiking/horseback riding trail specifications.

- To maintain developed trails annually to protect resources, promote visitor safety and prolong the life of the investment.

Trailheads

To provide and manage adequate portal facilities to protect resource values and to accommodate visitor needs including vehicle/trailer parking and regulatory, informational and directional signing.

Camp Areas

- To maintain a separation between camp areas in the Trailed Zone to augment social element objectives.

- To eliminate traditionally used camp areas located too close to developed trails.

- To prevent the establishment of "hardened" camp areas too close to streams and springs.

- To minimize the establishment of "hardened" camp areas in the Trailless Zone created by excessive use of certain locations.

Use Authorizations

To authorize only those activities and uses which are not expected to diminish the wilderness character of the area or the experience expectations of visitors.

Land Tenure Adjustments

To manage all lands and resources within designated wilderness boundaries through acquisition of non-Federal inholdings.

Emergency Services

To provide emergency visitor assistance, including the administration of first aid and initiation of search and rescue operations, whenever visitor safety or life-threatening situations warrant remedial action.

Fire

To suppress any wildfire, regardless of cause, and employ suppression techniques which result in the least amount of resource or surface disturbance.

Minerals

To ensure that regulatory provisions contained in oil and gas lease operating plans protect the rights of lessees (that is, they are reasonable and consistent with the continued use of the lands for the purposes for which the leases were issued) while minimizing the impact on the wilderness resource.

Cultural Resources

To preserve and protect all sites of known cultural resource value within wilderness boundaries.

Information and Education

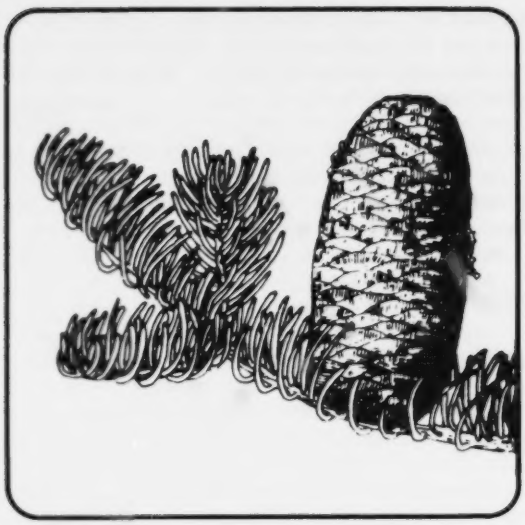
- To make information about the wilderness available to the public on request, but without advertising or promoting its use.

- To educate wilderness visitors and promote back-country etiquette through the "no trace" visitation concept.

- To encourage visitor compliance with established use regulations through the provision of positively worded information about the unique resources and opportunities available.

- To divert use not dependent on wilderness to alternative areas.

- To divert visitors seeking wilderness opportunities and experiences not available in the Table Rock Wilderness to other areas that are part of the National Wilderness Preservation System.



Part VI Wilderness Management Program

> Passing from beneath the shadows of the woods where the trees grow close and high, we step into charming wild gardens full of lilies, orchids, heartworts, roses, etc., with colors so gay and forming such sumptuous masses of bloom, they make the gardens of civilization, however lovingly cared for, seem pathetic and silly.
>
> John Muir
> from The Forests of Oregon in *Steep Trails*

The management actions presented in this part comprise the program which will guide the administration of lands and resources within TRW boundaries. These actions are designed to achieve management objectives by bringing about a balance between protection of TRW's unique combination of natural, scenic and cultural resources and utilization of the area for recreational, scientific and educational purposes. One very fundamental fact remains clear, however. The United States Congress, through passage of Public Law 98-328, intends that the area be managed as a component of the National Wilderness Preservation System. As such, it cannot be managed solely for public pursuit of recreation. The national benefit of the area lies not in how many people can annually visit, but instead in how it can be visited and enjoyed over the long term through preservation and protection of its exceptional resource values and wilderness character.

The 17 wilderness elements identified in Part IV as applicable to TRW are presented, element by element, in the following discussion under one of three major element categories—physical/biological, social or managerial. Specific management objectives, current management situation and assumptions, and program direction (management policies and actions) are addressed for each element.

Physical/Biological Elements

Soil

Management Objectives

- To limit soil displacement and erosion resulting from human activity and authorized uses to a rate that closely approximates the natural erosion process.

- To prevent soil compaction resulting from human activity and authorized uses to progress to a point where natural plant establishment is precluded (trailheads, traditionally used camp areas and developed trail tread in the Trailed Zone excepted).

Current Management Situation

When moist, TRW's soils are subject to compaction. Compacted soils are highly susceptible to surface runoff and erosion. Since steep slopes, rough terrain and thick vegetative cover combine to discourage most visitors from venturing too far from the developed trail system, human-induced soil compaction and erosion are strictly a Trailed Zone phenomenon. Trailheads, traditionally used camp areas and the developed trail tread show varying degrees of soil compaction and displacement—the result of many years of repeated human trampling and use.

Management Assumptions

- People will continue favoring use of the Trailed Zone over the Trailless Zone. Very light use, dispersed over a relatively large area by personal choice, will limit soil displacement in the Trailless Zone to a rate that approximates the natural erosion process.

- Without management attention, soil compaction and erosion within the Trailed Zone will increase at a rate proportional to increased visitation. Areas of concern will be the top of Table Rock, the small saddle by the trail on Table Rock's southwest shoulder, the headwaters of Image Creek, the large saddle just west of Rooster Rock, and the trail tread ascending the steep-nosed ridgeline eastward from the Old Bridge Trailhead.

Program Direction

- **Management Policy**

Areas within the Trailed Zone where changes in soil condition, triggered by human activity, exceed LAC standards established for soil element indicators will be stabilized. Where feasible, these areas will be rehabilitated to as near natural a condition as possible.

- **Management Actions**

1. Establish LAC standards for soil element indicators.

2. Inventory the Trailed Zone to determine where existing conditions exceed LAC standards established for soil element indicators.

3. Stabilize and, where feasible, rehabilitate to as near natural a condition as possible all areas identified in the initial inventory as requiring remedial work.

4. Monitor key soil element indicators in the Trailed Zone so that changes can be detected before unacceptable conditions requiring remedial work are reached.

Water

Management Objectives

- To maintain the riparian habitats of streams, springs, ponds and wetlands in their natural state.

- To manage human activity and authorized uses so that the integrity of surface water resources is maintained.

Current Management Situation

Except for a few specific points where the old jeep road crosses Bull Creek, Image Creek and an unnamed tributary to Table Rock Fork, the riparian habitats within TRW boundaries are in pristine condition. Even the minimally disturbed stream crossings, after 15 years without use or improvement, have "healed" naturally and blend with surrounding riparian vegetation.

A TRW water quality monitoring program was initiated in Fiscal Year 1985. Water samples were collected by the Salem District Hydrologist in October (1984), July, August and September from predesignated sampling points located on upper Image Creek and an unnamed tributary to Table Rock Fork. All samples were properly field-treated for immediate transport to Waterlab, a Salem-based water quality testing firm, for analysis. Water temperature, specific conductance and pH data were determined at each sampling point as samples were collected. Chemical and biological data were developed by Waterlab technicians who tested each sample for inorganic material (October and July samples only) and total coliform, fecal coliform and fecal strep. While several more years of surface water sampling and analysis are needed to formulate meaningful conclusions, this first-year monitoring effort has provided some rather interesting preliminary TRW water quality information. Chemically, the waters of both Image Creek and the unnamed tributary are of excellent quality. The pH ranged near 7.0 units and specific conductance was below 40 uMHO/CM at 25 degrees Celsius for all samples — an indication of very soft water. Tests for inorganics associated with Environmental Protection Agency and Oregon State Health Division primary drinking water standards

showed very low concentrations and, in most cases, were not even detected at specified limits. Biologically, the test results varied substantially depending on the date of collection. Total and fecal coliform testing of fall and early summer-month samples yielded very low bacteria counts, and fecal strep tested negative. However, the late summer samples (August and September) showed dramatic increases in bacteria levels, with some not meeting State of Oregon standards for contact recreation, let alone Federal and State standards for primary drinking water. Since visitation to the headwaters of Image Creek and the unnamed tributary was practically nil during the monitoring period, these were not visitor-induced increases, but increases caused by a combination of natural conditions. Temperature increases, lower precipitation rates, lower streamflow and increased use by wildlife (attracted to Image Creek and the unnamed tributary because of lack of water sources elsewhere in TRW's interior) are all factors contributing to the higher bacteria levels encountered.

Management Assumptions

Because sources are so limited, surface water will always be a scarce commodity during the mid-summer through fall period, particularly in TRW's interior. Riparian habitats will remain pristine and the chemical quality of surface water will not change from that encountered during the Fiscal Year 1985 monitoring program. In time, surface water sources will attract more visitors and be subject to increased consumptive uses. As focal points for visitation, streams, springs, ponds and wetlands, and their respective riparian habitats will be on the receiving end of more human disturbance. The potential for water quality deterioration, from a biological standpoint, must be anticipated. And, at a minimum, visitors will need to be advised that TRW's surface water is not potable and must be treated prior to use for consumptive purposes.

Program Direction

- **Management Policy**

1. Riparian habitats will be maintained. Any use which could prove deleterious to the pristine character of riparian vegetation will not be allowed to occur.

2. When it is determined that surface water within TRW is not potable, the public will be advised to treat it prior to use for consumptive purposes.

- **Management Actions**

1. Establish LAC standards for water element indicators.

2. Prohibit the establishment of "hardened" camp areas within riparian habitat through monitoring and use regulation.

3. Post notices at all trailheads advising visitors to treat water prior to use for consumptive purposes whenever a determination is made that water is not potable.

4. Develop watering facilities for recreational livestock away from sources of surface water at the headwaters of Image Creek if livestock use increases to a level where stream banks and riparian vegetation are adversely affected or where water quality deterioration is detected and attributable to such use.

5. Monitor key water element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.

Vegetation

Management Objectives

- To maintain plant species indigenous to the area immediately prior to wilderness designation with emphasis on species listed as sensitive.

- To limit natural plant succession interruptions resulting from human activity and authorized uses to a rate which can be recovered in one growing season (trailheads, traditionally used camp areas and developed trail tread in the Trailed Zone excepted).

- To prevent the loss of trees and excessive loss of ground cover at traditionally used camp areas and more heavily used locations within the Trailed Zone.

- To allow forest disease and noxious plant infestations to run their natural cycles so long as they do not cause unacceptable change to the wilderness resource or threaten significant resource values outside wilderness boundaries.

- To leave in place all standing dead vegetation, but allow down and dead vegetative material to be utilized for campfire purposes in amounts that can be replaced annually through natural accumulation.

• To confine vegetative modification along developed trails to planned trail location and design specifications, including that required for visitor safety.

Current Management Situation

For the most part, TRW's vegetation is unmodified and, in conjunction with the area's rugged topography, exemplifies the natural forest character which once covered the entire upper Molalla River drainage. Within the Trailless Zone, the exceptions are few and of minor significance. Several small peripheral intrusions, widely scattered along the high standard logging roads which surround TRW, are the result of forest management activity which started in the mid-1960's and ended in the mid-1970's. Mortality salvage and commercial thinning comprise most of the disturbance, although two small clearcut areas and two short sections of jeep road are present. However, the 100-foot boundary setback which parallels the developed road system places much of this modified forest environment outside the designated wilderness boundary thus diminishing, to some degree, the amount of disturbance inside TRW. Within the Trailed Zone, vegetative disturbance is limited to the developed trail system, the cross-ridge jeep road and heavily visited locations including traditionally used camp areas.

Forest disease, if present at all, is endemic within TRW, and mass infestations of noxious plants are not known to occur.

Because visitation is relatively low, natural plant succession interruptions, even in heavily visited areas, are minimal, and natural recovery occurs within one growing season. To date, no trees have died as a result of human activity, and ground cover loss due to repeated trampling at traditionally used camp areas and more heavily visited location has not been excessive. However, down and dead vegetative material in the vicinity of traditionally used camp areas is fast disappearing, and annual natural accumulation is not keeping pace with utilization by visitors for firewood purposes.

Annual trail maintenance has focused on visitor safety rather than user comfort by removing down trees lying across the trail, dead trees leaning over the trail and limbs and brush that force foot and horse traffic off the developed trail tread.

Seven "sensitive" plant species including Gorman's Aster, Smooth-leaved Douglasia, Clackamas Iris, Hall's Isopyrum, Shasta Lily, Fringed Pinesap, and Oregon Sullivantia are known to occur in scattered populations throughout TRW. Human activity and authorized uses have not, to BLM's knowledge, posed a threat to any population of these sensitive species.

Management Assumptions

• Other than the disturbance created by relocation of several segments of the developed trail system, vegetation within the Trailless Zone will not be affected by any of the management actions presented in this plan, and no specialized plant community habitats will be disturbed by new trail construction.

• Vegetation disturbance will be most evident within the Trailed Zone where increased human activity, concentrated along the developed trail system and at key destination points, is anticipated. The trailheads, ridge saddles, the headwater basin of Image Creek (only dependable surface water source in TRW's interior) and top of Table Rock are areas where BLM will pay particular attention to the impacts of visitation on plant communities.

• Without management attention, utilization of down and dead vegetative material for firewood will continue to outstrip the ability of certain areas to replace such material annually through natural accumulation.

Program Direction

• **Management Policy**

1. Management of TRW's vegetative cover will be directed toward retaining the pristine character of the wilderness environment and allowing natural ecological processes to operate freely so long as outbreaks of insects and disease do not cause unacceptable change to the wilderness resource.

2. Trees, shrubs, wildflowers and other vegetation will not be cut or sold for non-wilderness purposes. However, under emergency conditions, trees may be felled and other vegetation disturbed during wildfire suppression (see Fire Management Plan, Appendix B) or during insect, disease or noxious plant eradication when it is evident that infestations will cause unacceptable change to the wilderness resource or threaten resource values outside TRW boundaries.

3. Trees may be cut for use in construction and maintenance of authorized improvements located within TRW when suitable materials cannot be brought in from outside the wilderness. Any cutting for these administrative purposes will occur well away from the developed trail system and heavily visited locations, particularly traditionally used camp areas. Evidence of any cutting activity will be camouflaged.

4. Firewood cutting/gathering will be limited to down and dead vegetative material made available annually through natural accumulation.

5. Areas in the Trailless Zone disturbed by pre-wilderness forest management activities will not be rehabilitated but allowed to heal naturally and slowly blend with the surrounding vegetative cover. Paint markings which delineated the boundaries of old timber sale units will be camouflaged or otherwise removed from the boles of residual boundary trees.

6. Vegetative material will be removed annually from the developed trail system through a trail maintenance program for purposes of visitor safety rather than user convenience or comfort.

7. All known populations of sensitive plant species will be preserved and protected from construction of relocated trail segments and other authorized activities.

8. Trees and ground cover growing within the 100-foot boundary setback will not be cut or disturbed except for visitor safety and road maintenance reasons or to provide adequate space to meet State of Oregon safety codes for landing areas and guying cable logging equipment. No planned timber sales will be located within the boundary setback strip.

9. Forest disease and noxious plant infestations which threaten significant resource values outside wilderness boundaries will be treated and eradicated when possible.

- **Management Actions**

1. Establish LAC standards for vegetation element indicators.

2. Inventory the Trailed Zone to determine where existing conditions exceed LAC standards established for the vegetation element indicators.

3. Stabilize and, where feasible, rehabilitate to as near natural a condition as possible all areas identified in the initial Trailed Zone inventory as requiring remedial work.

4. Conduct further botanical field examinations to produce a complete inventory of plants inhabiting TRW.

5. Encourage visitors to use portable cookstoves and refrain from building campfires through messages contained in the wilderness information and education program. Consider seasonal or year-round campfire prohibitions when fuelwood use, even with the information programs, appears to outstrip the annual accumulation.

6. Monitor key vegetation element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.

Fish and Wildlife

Management Objectives

- To maintain fish and wildlife species indigenous to the area immediately prior to wilderness designation with emphasis on sensitive, threatened and endangered species.

- To allow natural ecological succession of fish and wildlife populations, including natural infestations of insects, so long as they do not cause unacceptable change to the wilderness resource or threaten significant resource values outside wilderness boundaries.

- To limit habitat alteration resulting from human activity and authorized uses to a rate commensurate with LAC standards set for other physical/biological wilderness elements.

- To permit reestablishment of native fish and wildlife species or establishment of a sensitive, threatened or endangered species so long as the action is for correcting an undesirable condition resulting from human activity or authorized uses.

Current Management Situation

A July 1985 stream survey within TRW boundaries confirmed earlier speculation that no stream supports a fishery capable of withstanding angling pressure over an extended period. Bull Creek, Image Creek and an unnamed tributary to Table Rock Fork were surveyed. No fish were found in either Bull Creek or the unnamed tributary, and Image Creek produced only a limited cutthroat trout population with all but a few fish under six inches in length. Steep streambed gradient, low summer streamflow and poor food supply contribute to low fish population.

TRW's extensive stand of undisturbed forest environment coupled with its steep, rugged terrain, talus, slide scarps, sheer cliffs, basaltic rock outcrops and crags, and riparian areas provide outstanding habitat diversity for a wide variety of wildlife species. As with all lands under BLM jurisdiction in the Salem District, wildlife is managed by the State of Oregon, and wildlife habitat is managed by BLM.

The northern spotted owl, a species listed as "threatened" by the Oregon Department of Fish and Wildlife, was last observed within TRW boundaries in 1980. No other sensitive, threatened or endangered species is known to inhabit the area, but the sheer cliff areas have been identified by the Oregon Department of Fish and Wildlife as having moderate potential for reintroduction of peregrine falcons. A pair of golden eagles nesting in the Molalla River drainage has been observed soaring above the western portions of TRW and may occasionally hunt in the open meadows scattered along the area's upper ridges.

Insect infestations, if present at all, are endemic within TRW.

The lower elevation south-facing slopes of TRW's main east-west ridgeline provide excellent deer and elk winter range.

Management Assumptions

- A fishery will never develop in TRW's streams, and angling opportunities, if they exist at all, will always be poor.

- TRW's steep slopes and rugged terrain are not conducive to hunting, but some hunting will continue to occur within wilderness boundaries.

- Fish and wildlife populations and species diversity will remain fairly constant within TRW. Animal disturbance will be most evident within the Trailed Zone where increased human activity, concentrated along the developed trail system and at key visitation points, is anticipated.

Program Direction

- **Management Policy**

1. The natural distribution, population and interaction of TRW's indigenous fish and wildlife species will be maintained.

2. Except where specific program direction for other wilderness elements allows for alteration, fish and wildlife habitat will be maintained without human influences.

3. Hunting, fishing and trapping will be permitted within TRW subject to BLM policies and applicable Federal and State of Oregon laws and regulations.

4. Insect infestations will be allowed to run their natural cycles so long as they do not cause unacceptable change to the wilderness resource or threaten significant resource values outside wilderness boundaries. Epidemic populations determined unacceptable will be treated and eradicated when possible.

5. Consideration will be given to reestablishment of native fish and wildlife species or the establishment of a sensitive, threatened or endangered species when conditions warrant remedial action.

- **Management Actions**

1. Establish LAC standards for fish and wildlife element indicators.

2. Conduct further wildlife field examinations to produce a complete inventory of animals inhabiting or using TRW's habitat.

3. Continue northern spotted owl survey work within TRW to gain as much information on this State of Oregon "threatened" species as possible.

4. Allow reintroduction of peregrine falcons within TRW if the Oregon Department of Fish and Wildlife recommends that a hacking program should be initiated at this site.

5. Monitor key fish and wildlife element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.

Social Elements

Recreation Use

Management Objectives

To provide opportunities for visitors to experience solitude and to participate in primitive and unconfined types of recreation activities that are consistent with preservation of wilderness character.

Current Management Situation

Though close to Oregon's three largest population centers (Portland, Eugene and Salem), TRW is just now being "discovered" by the populace. Compared to other wilderness areas in the region, total annual visitation is very low. During Calendar Year 1985, it is estimated that 500 people visited TRW. Visitation figures for Calendar Year 1986 are not expected to be much higher. Because very steep slopes, rugged terrain and thick vegetative cover are barriers to cross-country travel, practically all visitation occurs within the Trailed Zone on or along the developed trail system. Although some winter-related recreation has been observed, most recreation use occurs during the mid-June through mid-September period when snow accumulation at

higher elevations has melted, visibility improves and wildflowers are in full bloom.

From field observations, it is clear that day-use activities are preferred over those requiring an overnight stay. TRW's small size and proximity to the Willamette Valley have more to do with this than any real lack of wilderness attributes. Day hiking, horseback riding, picnicking and sightseeing (including wildflower and wildlife observation, photography and viewing high Cascade Range scenery) are all popular activities. Backpacking and camping, while not nearly as prevalent, are activities commonly associated with TRW visitation. Cross-country skiing and snowshoeing are the only winter-month activities known to occur within the area.

Recreation use data are sketchy as visitor use surveys and other methods of gathering user data have not been conducted or employed to date.

Management Assumptions

- Total annual visitation will increase steadily during the 10-year planning period.

- Visitors will continue favoring use of the Trailed Zone over the Trailless Zone.

- The preponderance of recreation activity within TRW will continue to be day-use oriented, although overnight visitation will increase as word of TRW's existence spreads and more people learn of its unique attributes.

- Winter-month recreation use will become a more significant management issue.

Program Direction

- **Management Policy**

1. Recreation is a legitimate use of TRW.

2. Where a choice must be made between preservation of wilderness character and visitor use, the wilderness resource will be dominant in all management decisions.

3. Direct and indirect visitor management techniques will be utilized when necessary to both preserve the wilderness resource and provide visitors with wilderness recreation opportunities and experiences which TRW is capable of producing.

4. Regulations limiting the number of visitors and/or recreational livestock within TRW will be put into effect only after implementation of other reasonable control measures fail to bring user-related impacts in line with established LAC standards.

5. Facilities and improvements will not be provided solely for visitor comfort and convenience. Where required for protection of the wilderness resource or for the health and safety of visitors, only the minimum necessary improvements will be authorized.

- **Management Actions**

1. Establish LAC standards for recreation use element indicators.

2. Gather recreation use data through visitor surveys and other data gathering methods to determine if and when existing social conditions exceed LAC standards established for recreation use element indicators.

3. If visitor surveys and other data gathered from TRW users indicate that established LAC standards for social conditions are presently exceeded, implement whatever visitor management actions are necessary to bring use levels in line with the affected LAC standards.

4. To promote an atmosphere of visitor courtesy and respect, require recreational livestock be held overnight away from traditionally used camp areas and domesticated pets be physically restrained or under reliable voice control at all times.

5. Monitor key recreation use element indicators in the Trailed Zone so that changes can be detected before unacceptable conditions requiring remedial work are reached.

Other Visitor Use

Management Objectives

To permit visitation and use for purposes other than recreation, including monitoring, research and scientific study, so long as planned activities are compatible with other wilderness management objectives and leave the area unimpaired for future use and enjoyment as wilderness.

Current Management Situation

No research projects or scientific studies are being conducted within TRW at the present time; however, three BLM monitoring efforts have been initiated (northern spotted owl survey, water quality monitoring and soil/vegetative cover monitoring).

The northern spotted owl survey effort within TRW was initiated in the late 1970's. This species was last observed here in 1980.

The water quality monitoring program was initiated in October 1984. Raw surface water samples are collected by BLM on a scheduled basis from four separate stations (three on Image Creek and one on an unnamed tributary to Table Rock Fork near the Table Rock Trailhead). Waterlab, a Salem-based water quality testing firm, analyzes the samples for pH, specific conductance, inorganics, fecal coliform and total coliform.

The soil/vegetative cover monitoring program was initiated in July 1985. Photographs of permanently established photo plots will be taken annually so that changes in site conditions can be analyzed over time. Photo plot locations, all within the Trailed Zone, include the top of Table Rock, the small saddle by the trail on Table Rock's southwest shoulder, the headwaters of Image Creek, the large saddle just west of Rooster Rock and the Rooster Rock meadow.

Management Assumptions

- Existing BLM monitoring programs will continue, and additional monitoring efforts will be initiated following development of the LAC system for the area.

- Proposals will be made to conduct research projects and scientific studies within TRW boundaries.

Program Direction

- **Management Policy**

1. Monitoring, research and scientific study programs which are wilderness dependent, will not jeopardize wilderness character and are compatible with the stated management goals and objectives presented in this plan, will be approved.

2. Information generated by approved wilderness research projects and scientific studies conducted within TRW will be made available to the research and scientific community.

3. Monitoring, research and scientific studies will be conducted without use of motorized equipment or construction of permanent structures.

- **Management Actions**

1. Encourage development of basic social and physical/biological resource information by coordinating and cooperating with the Pacific Northwest Forest and Range Experiment Station and universities regarding opportunities for research projects and scientific studies which TRW may offer.

2. Approve proposed research projects and scientific studies which meet the test of management policy and issue appropriate permits authorizing use for stated purposes.

3. Divert research which is not dependent on the resources of TRW to areas outside wilderness boundaries.

4. Continue the existing monitoring efforts related to water quality, soil/vegetative cover and the northern spotted owl according to established schedules. Initiate new monitoring projects to complement the LAC system when completed.

Managerial Elements

Signs

Management Objectives

- To limit provision of regulatory and informational signs to trailheads and locations where their placement is absolutely necessary to protect specific resource values or for visitor safety.

- To provide directional signs at trailheads and trail junctions only.

Current Management Situation

Present administrative signing at wilderness portals is inadequate. Other than the official metal 7" x 10" wilderness boundary sign (Sign No. S-175) and a routed wooden "Table Rock Wilderness" sign posted at each of TRW's three trailheads, there are no regulatory, directional or informational signs posted within the wilderness.

The "Table Rock Wilderness" sign placed at the Old Bridge Trailhead was stolen within seven days of its posting, and the official boundary sign was vandalized. None of the signs posted at the Table Rock and Peachuck Lookout Trailheads have been vandalized to date.

Management Assumptions

- A comprehensive wilderness signing plan will have to be developed for the Trailed Zone.

- Maps, brochures and similar material developed as a part of the wilderness information and education program will reduce the need for posting some signs within TRW.

- Sign vandalism will continue, particularly at the Old Bridge Trailhead.

Program Direction

- **Management Policy**

1. Signs will not be posted in the Trailless Zone except where their placement is absolutely necessary to protect specific resource values or for visitor health and safety reasons.

2. Except for trailheads, signing within the Trailed Zone will be limited to directional signs at trail junctions and regulatory or informational signs absolutely necessary to protect specific resource values or for visitor health and safety reasons.

3. Trailhead signing will include a standard wilderness boundary sign, a directional sign for the developed trail system, regulatory signs and official informational signs pertaining to fire prevention and back-country etiquette.

4. Signs will be installed so as to minimize both the physical and psychological impacts associated with their placement.

- **Management Actions**

1. Develop a comprehensive signing plan for TRW's Trailed Zone.

2. Install signs as prescribed in the comprehensive signing plan consistent with stated management policy. Directional signs will be placed at trailheads and trail junctions only. Regulatory and informational signs will be placed at each trailhead on a standard sign board and at locations where their placement is absolutely necessary to protect specific resource values or for visitor safety. Under no circumstance will signs be placed in either the Trailed or Trailless Zones to identify natural features or to provide onsite interpretation.

Trails

Management Objectives

- To provide and manage a developed trail system which allows visitors an opportunity to test hiking/horseback riding skills and experience a sensation of physical exertion and feeling of accomplishment.

- To minimize the establishment of impromptu footpaths in the Trailless Zone created by excessive use of certain cross-country routes.

- To design and construct new trail segments and relocated portions of the existing developed trail system using state-of-the-art hiking/horseback riding trail specifications.

- To maintain developed trails annually to protect resources, promote visitor safety and prolong the life of the investment.

Current Management Situation

The ribbon-like Trailed Zone contains all 17 miles of TRW's "developed" trail system. Of this total, 10 miles are well established hiking/horseback riding trails extending primarily along the area's prominent ridges. The remaining 7-mile section is the old bulldozed cross-ridge "jeep road" extending midslope from the Rooster Rock Road on the south to the Table Rock Road on the north.

The jeep road was permanently blocked in 1984 to discourage motor vehicle access into TRW's interior. Neglected for 15 years, this route is now strewn with fallen trees, cut banks are raveling and native vegetation is reestablishing itself throughout. This natural healing process has created a rather nice "trail" which is occasionally used by hikers and horseback riders as a means to traverse the otherwise steep and rugged terrain so characteristic of the Trailless Zone.

For the most part, the 10-mile trail system provides exceptionally good opportunities for hiking, backpacking and horseback riding. However, several sections of the existing trail route are poorly located, with long stretches of grade three to four times steeper than state-of-the-art design standards recommended. These long, steep grades cannot support a stable trail tread because the soils involved are compactible when moist and very susceptible to erosion. Approximately 4 miles of trail are of immediate concern (the 2.5-mile section ascending the steep-nosed ridgeline eastward from the Old Bridge Trailhead and the 1.5-mile section extending from Rooster Rock northward into the headwaters of Image Creek, along the prominent saddle dividing the Image Creek drainage from the Camp Creek drainage and up the steep-nosed ridgeline to its junction with the trail ascending Table Rock). These are the most notable "weak links" of an otherwise good trail system, and hiking and horseback riding on these particular sections are difficult at best.

Over the years, trail maintenance efforts have been very erratic. When youth work programs flourished in the mid-1970's, BLM was able to keep up with trail maintenance needs throughout the District. When the work-force made available by these programs was cut off in the late 1970's, the trail maintenance program suffered. Little was accomplished in the Table Rock area until 1985 when a one year volunteer trail maintenance agreement was entered into by BLM and the Chemeketans, a Salem-based hiking and outdoor club. Through this agreement, BLM and the

Chemeketans joined forces to maintain a portion of TRW's trail system in July 1985.

Trail-cutting between "switchback" sections of trail traversing the west slope of Table Rock has increased to the point where soil and vegetation disturbance is very noticeable in some locations.

Management Assumptions

- The jeep road will become a more significant part of the trail system as visitors discover its location and attributes. As an alternative travel route, its use should increase.

- Several sections of the trail system in substandard condition will have to be substantially improved and/or relocated to adequately protect wilderness resources, provide for visitor safety and prolong the life of the trail investment.

- Trail-cutting will continue in the absence of informational signing designed to elicit voluntary compliance from visitors to stay on the developed trail in "switchback" areas.

- Greater emphasis will have to be placed on annual trail maintenance.

- The volunteer trail maintenance agreement with the Chemeketans will be renewed on an annual basis and/or similar volunteer agreements with other organizations will be sought.

Program Direction

- **Management Policy**

1. New trails and relocated sections of existing trail will be constructed when needed to protect wilderness values within TRW.

2. All sections of old trail abandoned in lieu of new relocated sections will be rehabilitated and permanently "put to bed."

3. Trail construction will not be undertaken in the absence of an approved trail project plan. State-of-the-art design standards and specifications will serve as the basis for project survey and design.

4. Trailed and Trailless Zone boundaries will be modified to reflect changes resulting from construction of new trails or relocated trail sections.

5. All developed trails within TRW will be maintained annually with emphasis on resource protection and visitor safety rather than user convenience or comfort.

6. Informational signs will be posted at trailheads advising visitors to avoid "cutting trail" to shorten travel time and distance. The message will discuss the matter of resource protection.

- **Management Actions**

1. Convert the jeep road to full trail status, eliminate safety hazards and maintain it along with other sections of developed trail in the Trailed Zone.

2. Construct 6 miles of new trail to replace 3 miles of existing trail sections which are too steep and in substandard condition. Design relocated sections to an 8 percent grade standard and follow state-of-the-art specifications for hiking/horseback riding trails.

3. Rehabilitate and permanently "put to bed" 3 miles of abandoned trail (replaced by 6 miles of new trail construction).

4. Modify the wilderness management plan to incorporate Trailed and Trailless Zone changes brought about by new trail construction.

5. Annually maintain TRW's 20-mile trail system and solicit volunteer assistance from local organizations to accomplish trail maintenance work.

6. Post informational signs containing a "trail cutting" and resource protection message at all trailheads to encourage visitors to stay on the developed trails in "switchback" areas.

Trailheads

Management Objectives

To provide and manage adequate portal facilities to protect resource values and to accommodate visitor needs including vehicle/trailer parking and regulatory, informational and directional signing.

Current Management Situation

Three unimproved trailheads, Old Bridge, Table Rock and Peachuck Lookout, provide limited vehicle parking space and access to TRW's developed trail system. Old Bridge Trailhead, lowest and westernmost of the three trailheads, is nothing more than a wide spot on forest road 7-3E-14.1, a dead-end rocked road near the junction of the South Molalla, Middle Fork and Copper Creek Roads. Table Rock Trailhead is a short section of rocked road shoulder near the end of Table Rock Road on the northern TRW boundary. Peachuck Lookout Trailhead, highest and easternmost of the three trailheads, is nothing more than a wide spot on Crown Zellerbach Corporation's 8150 road, a dead-end forest road near the abandoned Peachuck

Lookout station. All three trailheads are too small to adequately and safely serve the needs of TRW's visitors.

Other than the small and relatively flat space for vehicle parking provided by the existing roads and the minimal signing described in Signs (Current Management Situation), no portal facilities are provided. Litter is picked up whenever BLM staff visit TRW, but routine trailhead maintenance has never been programmed.

Management Assumptions

- Additional trailheads are not needed at this time.

- Improvement of existing trailheads is needed to meet user requirements.

Program Direction

- **Management Policy**

1. All trailheads will provide adequate space for vehicles to be parked safely (including horse trailers at Old Bridge Trailhead) for extended periods. In addition, the trailhead signing described in Signs (Program Direction— Management Policy), will be provided at each Trailhead.

2. Trailhead construction will not be undertaken in the absence of an approved trailhead project plan.

3. All trailheads will be maintained on a scheduled basis to foster the preventative maintenance concept and provide visitors safe and secure portals from which to begin and end their wilderness stay.

- **Management Actions**

1. Prepare a trailhead project plan covering all three of TRW's existing trailheads and, following plan approval, develop the portal facilities described for each.

2. Annually maintain TRW's three trailheads.

Camp Areas

Management Objectives

- To maintain a separation between camp areas in the Trailed Zone to augment social element objectives.

- To eliminate traditionally used camp areas located too close to developed trails.

- To prevent the establishment of "hardened" camp areas too close to streams and springs.

- To minimize the establishment of "hardened" camp areas in the Trailless Zone created by excessive use of certain locations.

Current Management Situation

Because most recreation activity within TRW has been day-use oriented, only a few "hardened" camp areas have evolved over time. Even before wilderness designation, BLM had not improved any sites within TRW with facilities to accommodate overnight visitation.

The "hardened" camp areas that have sprung up through repeated use are all located within the Trailed Zone adjacent to the developed trail system. Most notable of these are the scattered sites located on top of Table Rock and the traditionally used camp area situated on the small saddle on Table Rock's southwest shoulder.

Management Assumptions

- Visitation at traditionally used camp areas will increase, with deleterious affects on wilderness resources and on experience expectations of both those occupying the camp areas and those simply passing through.

- Because of water availability, the bench areas at the headwaters of Image Creek will most certainly receive intense camping pressure as use of TRW increases and visitors become more aware of the area's physical/biological opportunities and limitations.

- The large saddle just west of Rooster Rock will become a focal point for visitation and camp area establishment because of its proximity to the Peachuck Lookout Trailhead, exceptional views and plethora of wildflowers blooming during the peak-use period.

Program Direction

- **Management Policy**

1. Camp areas will be spaced to allow overnight visitors a reasonable degree of solitude and quiet.

2. "Hardened" camp areas will be located away from TRW's main developed trail system and riparian habitat.

3. Improvised camp structures, including shelters and lean-tos constructed by visitors, are not permitted and will be removed.

4. Hitchracks, corrals or other improvements, including watering facilities, will be installed in appropriate locations when needed to prevent

damage to the wilderness resource caused by recreational livestock.

- **Management Actions**

1. Close the narrow trail corridor on top of Table Rock to overnight camping and encourage visitors wishing to camp in this vicinity to use sites west of the Trailed Zone.

2. Close the small saddle on Table Rock's southwest shoulder to overnight camping.

3. Close the large saddle just west of Rooster Rock to overnight camping.

Use Authorizations

Management Objectives

To authorize only those activities and uses which are not expected to diminish the wilderness character of the area or the experience expectations of visitors.

Current Management Situation

Other than the oil and gas leases covered in Minerals, there are no use authorizations in effect which apply to TRW.

Management Assumptions

- Since this plan calls for the acquisition of the 80-acre parcel of privately owned land in Section 16, T. 7 S., R. 4 E., W.M., access to the inholding will not be an issue (see Land Tenure Adjustments).

- With the exception of research projects and scientific studies proposed by the scientific community (discussed in Social Elements, Other Visitor Use), surface use authorizations are not anticipated.

Program Direction

- **Management Policy**

Surface use authorizations will be issued for activities and uses determined compatible with the management goals and objectives presented in this plan.

- **Management Actions**

issue surface use authorizations for proposed uses and activities which meet the test of management policy.

Land Tenure Adjustments

Management Objectives

To manage all lands and resources within designated wilderness boundaries through acquisition of non-Federal inholdings.

Current Management Situation

There is one privately owned inholding within TRW boundaries. Brazier Forest Products, a Molalla-based firm, owns an 80-acre parcel in Section 16, T. 7 S., R. 4 E., W.M.

Management Assumptions

- Brazier Forest Products is willing to negotiate the Federal acquisition of their 80-acre inholding.

- Federal acquisition of the 80-acre inholding is in the best public interest.

Program Direction

- **Management Policy**

1. Acquisition of non-Federal lands within TRW boundaries is authorized by purchase or exchange.

2. BLM will seek to acquire mineral rights along with the surface rights.

3. Acquisition will only occur if Brazier Forest Products is a willing partner in the purchase or exchange effort.

- **Management Actions**

Acquire the 80-acre inholding from Brazier Forest Products by purchase or exchange.

Emergency Services

Management Objectives

To provide emergency visitor assistance, including the administration of first aid and initiation of search and rescue operations, whenever visitor safety or life-threatening situations warrant remedial action.

Current Management Situation

Within the Salem District, the respective county sheriffs have primary responsibility for search and rescue operations. BLM's role has traditionally been one of cooperating with and actively supporting sheriff-directed search and rescue efforts. BLM also recognizes an obligation to the public in cases where immediate action is necessary to provide aid

to forest visitors who are lost, seriously ill or injured. TRW is in Clackamas County; therefore, the primary responsibility for search and rescue operations rests with the Clackamas County Sheriff.

To BLM's knowledge, there are no cases of record where a search and rescue effort has been needed within what is now TRW. This does not diminish the possibility of such need in the future, especially when increased visitation is considered.

Management Assumptions

- The Clackamas County Sheriff will continue to have lead responsibility for search and rescue operations within TRW.

- As visitation increases, so too will the need for search and rescue preparedness and capability.

- Seasonal personnel working within TRW will need first aid training and must be prepared to initiate search and rescue operations in the event of an emergency.

Program Direction

- **Management Policy**

1. The Clackamas County Sheriff will have lead responsibility for search and rescue operations within TRW.

2. BLM coordination with the Clackamas County Sheriff will be maintained for all search and rescue matters related to management of TRW.

3. A search and rescue plan for TRW will be developed and updated annually.

4. All seasonal personnel assigned primary work responsibility within TRW will receive first aid and CPR training and will be familiar with search and rescue procedures as prescribed in the approved TRW search and rescue plan.

5. In cases where immediate action is essential, BLM will initiate search and rescue operations pending the sheriff's office involvement. Such action will be considered as interim support, to be ended as soon as the sheriff can assume command of the situation.

6. Helicopter use may be allowed within TRW when emergency, life-threatening conditions exist or for removal of a deceased person. Such use will be guided by strict criteria developed for and described in the approved TRW search and rescue plan.

- **Management Actions**

1. Prepare and secure management approval for a TRW search and rescue plan. Establish specific criteria for helicopter use within the wilderness and include this criteria as operational guidelines in the plan. Update the plan annually to reflect current situations and conditions.

2. Meet with the Clackamas County Sheriff annually to discuss updating the TRW search and rescue plan.

3. Provide first aid and CPR training to all seasonal personnel assigned primary work responsibility within TRW. Ensure that these personnel are made familiar with the current search and rescue procedures described in the approved search and rescue plan through the employee orientation process.

4. Initiate immediate search and rescue operations when action is essential to saving lives or expediting rescue.

Fire (See Appendix B for the Fire Management Plan for TRW)

Minerals

Management Objectives

To ensure that regulatory provisions contained in oil and gas lease operating plans protect the rights of lessees (that is, they are reasonable and consistent with the continued use of the lands for the purposes for which the leases were issued) while minimizing the impact on the wilderness resource.

Current Management Situation

As of midnight June 26, 1984, no mining claims were located within TRW boundaries; therefore, mining operations and unpatented mining claims are not an issue in this wilderness management plan. With respect to mineral leases, there were six of record as of this time and date, all oil and gas, which wholly or partially cover lands within designated wilderness boundaries. These include:

Serial No.	Lessee	Date of Lease	Acreage Total	Acreage TRW
OR 18558	PRM Exploration	7-3-80	1,600	520
OR 18559	PRM Exploration	7-3-80	1,880	990
OR 18560	PRM Exploration	7-3-80	2,429	400
OR 19241	PRM Exploration	7-3-80	1,492	170
OR 19242	PRM Exploration	7-3-80	1,600	770
OR 20740	Ruth Maddox	7-3-80	2,519	580
		Totals	**11,440**	**3,430**

All of these leases were issued four years prior to legislation designating TRW a component of the National Wilderness Preservation System, and none carried a "no surface occupancy" stipulation for exploration operations. To date, no plans of operation have been submitted by the lessees for BLM action. Thus, no plans have been approved, and use authorizations permitting operations to proceed have not been issued.

Management Assumptions

Oil and gas exploration can be accommodated from existing high-standard access roads which surround TRW. From the Middle Fork Road, Table Rock Road, Camp Creek Road, Rooster Rock Road, Copper Creek Road and two spur roads (one off the Table Rock Road and the other off the Copper Creek Road), it is less than a mile to the east/west-trending centerline of the wilderness. The relatively narrow, linear configuration of TRW (surrounded by the highly developed road system) adds validity to this assumption.

Program Direction

- **Management Policy**

Approve plans of operation, if submitted by lessees of record, when it is determined that every effort has been made to minimize operational impacts on the wilderness resource. Use of mechanical transport, motorized equipment, or aircraft will be authorized only where there is no reasonable alternative to such use.

- Management Actions

Approve plans of operation, when submitted, which meet the test of management policy.

Cultural Resources

Management Objectives

To preserve and protect all sites of known cultural resource value within wilderness boundaries.

Current Management Situation

Three sites of archeological significance have been identified within TRW. For the most part, these are "lithic scatter" sites of which two are in fairly good condition. The third site is being notably disturbed by day hikers and by overnight visitors (through artifact collection, fire-ring construction and use, and camping). All three sites were determined eligible for inclusion on the National Register of Historic Places on May 8, 1979, as one site called the Table Rock Trail site.

The main Table Rock Trail, used by Indians and Euro-Americans into historic times, is the only historically significant feature within TRW.

Management Assumptions

- Increased visitation and use, particularly that associated with the Trailed Zone, will have a profound adverse impact on archeologically significant sites.

- The "putting to bed" and rehabilitation of 3 miles of abandoned trail (replaced by new trail construction) will adversely affect several sections of the historically significant Table Rock Trail.

Program Direction

- **Management Policy**

1. With the exception of several sections of the main Table Rock Trail to be "put to bed" and rehabilitated as a result of new trail construction, all archeological and historical sites located within TRW will be protected under provisions of the Uniform Rules and Regulations (43 CFR Part 3) to carry out the Antiquities Act of 1906, the Historic Sites Act of 1935, Executive Order 11593, the National Historic Preservation Act of 1966, as amended, and the Archeological Resources Protection Act of 1979. Cultural resources data on trail sections to be rehabilitated have been mitigated by documentation through National Register of Historic Places eligibility determination.

2. Further cultural resource inventory and evaluation work will be undertaken within TRW.

3. Cultural resources, in most instances, will be subject to the forces of nature in the same manner as other wilderness resources and will be allowed to deteriorate naturally.

- **Management Actions**

1. Establish LAC standards for cultural resource element indicators.

2. Inventory the Trailed Zone to determine where existing conditions exceed LAC standards established for the cultural resource element indicators.

3. Stabilize all areas identified in the initial Trailed Zone inventory as requiring remedial work.

4. Conduct further cultural resource field examinations to produce a complete inventory of cultural resource sites within TRW.

5. Conserve known cultural resource values within TRW through a variety of methods, including non-disclosure of site location data, public education and on-site protection.

6. Monitor key cultural resource element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.

Information and Education

Management Objectives

- To make information about the wilderness available to the public on request but without advertising or promoting its use.

- To educate wilderness visitors and promote back-country etiquette through the "no trace" visitation concept.

- To encourage visitor compliance with established use regulations through the provision of positively worded information about the unique resources and opportunities available.

- To divert use not dependent on wilderness to alternative areas.

- To divert visitors seeking wilderness opportunities and experiences not available in TRW to other areas that are part of the National Wilderness Preservation System.

Current Management Situation

A comprehensive plan for public information and education has not yet been developed for TRW. Fortunately, low annual visitation and very little public demand for information have given BLM some "breathing room" on this particular program. TRW's newness, small size and lack of comparable renown given other wilderness areas in the Pacific Northwest contribute to this seeming ambivalence.

Management Assumptions

There is no question that as word of TRW's existence spreads and as more people "discover" its attributes, the need and demand for wilderness information and education will dramatically increase. BLM will need to develop an information and education strategy to cope with this new demand—both on site and at the District headquarters office in Salem.

Program Direction

- **Management Policy**

1. In general, publicity for TRW will be discouraged.

2. A comprehensive plan covering an information and education strategy for TRW will be developed.

3. Information and education material promoting visitor voluntary compliance with established rules and regulations will be a primary means for controlling the impact of visitation and use on the wilderness environment. All new maps, brochures and other printed material will contain messages dealing with the "no-trace" visitation, the "pack-it-in, pack-it-out" philosophy and similar back-country etiquette advice.

4. Use not dependent on a wilderness setting will be diverted to other areas.

5. Visitors seeking wilderness opportunities and experiences not available in TRW will be diverted to other areas that are a part of the National Wilderness Preservation System.

- **Management Actions**

1. Develop a comprehensive information and education plan detailing how BLM will deliver its wilderness management message to the public.

2. Refrain from "pushing" TRW on the public by carefully limiting the types and amounts of publicity released. Respond to requests without creating demand.

3. Develop maps, brochures and other printed material prescribed by the comprehensive information and education plan for TRW. Promote the "no-trace" visitation concept, the "pack-it-in, pack-it-out" concept and similar back-country etiquette advice in all printed material where appropriate.

Part VII Implementation Sequence

Budget constraints notwithstanding, the wilderness management program detailed in Part VI will be implemented following the schedule set forth in Figure 5. The target date for implementing each management action was determined by considering priorities for long-term protection and preservation of TRW's wilderness character, Salem District's manpower/workmonth capabilities, and timeframes which govern BLM's budget process. The fact that some actions are prerequisites for others was also a primary consideration in deriving this implementation sequence.

Figure 5 Implementation Schedule

Wilderness Element	Proposed Action (as listed in Part VI of the draft plan)	Implementation Target Date
Physical/Biological		
Soil	• Establish LAC standards for soil element indicators.	By September 30, 1986
	• Inventory the Trailed Zone to determine where existing conditions exceed LAC standards established for soil element indicators.	By September 30, 1987
	• Stabilize and, where feasible, rehabilitate to as near natural a condition as possible all areas identified in the initial inventory as requiring remedial work.	By September 30, 1989
	• Monitor key soil element indicators in the Trailed Zone so that changes can be detected before unacceptable conditions requiring remedial work are reached.	Annually after FY 1986
Water	• Establish LAC standards for water element indicators.	By September 30, 1986
	• Prohibit the establishment of "hardened" camp areas within riparian habitat through monitoring and use regulation.	Annually after FY 1986
	• Post notices at all trailheads advising visitors to treat water prior to use for consumptive purposes whenever a determination is made that water is not potable.	Annually
	• Develop watering facilities for recreational livestock away from sources of surface water at the headwaters of Image Creek if livestock use increases to a level where stream banks and riparian vegetation are adversely affected or where water quality deterioration is detected and attributable to such use.	When use dictates need
	• Monitor key water element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.	Annually after FY 1986
Vegetation	• Establish LAC standards for vegetation element indicators.	By September 30, 1986
	• Inventory the Trailed Zone to determine where existing conditions exceed LAC standards established for the vegetation element indicators.	By September 30, 1987
	• Stabilize and, where feasible, rehabilitate to as near natural a condition as possible all areas identified in the initial Trailed Zone inventory as requiring remedial work.	By September 30, 1989
	• Conduct further botanical field examinations to produce a complete inventory of plants inhabiting TRW.	By September 30, 1988
	• Encourage visitors to use portable cookstoves and refrain from building campfires through messages contained in the wilderness information and education program. Consider seasonal or year-round campfire prohibitions when fuelwood use, even with the information programs, appears to outstrip the annual accumulation.	Annually
	• Monitor key vegetation element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.	Annually after FY 1986
Fish and Wildlife	• Establish LAC standards for fish and wildlife element indicators.	By September 30, 1986
	• Conduct further wildlife field examinations to produce a complete inventory of animals inhabiting or using TRW's habitat.	By September 30, 1988
	• Continue northern spotted owl survey work within TRW to gain as much information on this State of Oregon "threatened" species as possible.	Annually
	• Allow reintroduction of peregrine falcons within TRW if the Oregon Department of Fish and Wildlife recommends that a hacking program should be initiated at this site.	When State dictates need

Wilderness Element	Proposed Action (as listed in Part VI of the draft plan)	Implementation Target Date
	• Monitor key fish and wildlife element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.	Annually after FY 1986
Social		
Recreation Use	• Establish LAC standards for recreation use element indicators.	By September 30, 1986
	• Gather recreation use data through visitor surveys and other data gathering methods to determine if and when existing social conditions exceed LAC standards established for recreation use element indicators.	Annually after FY 1986
	• If visitor surveys and other data gathered from TRW users indicate that established LAC standards for social conditions are presently exceeded, implement whatever visitor management actions are necessary to bring use levels in line with the affected LAC standards.	When use dictates need
	• To promote an atmosphere of visitor courtesy and respect, require recreational livestock be held overnight away from traditionally used camp areas and domesticated pets be physically restrained or under reliable voice control at all times.	Annually
	• Monitor key recreation use element indicators in the Trailed Zone so that changes can be detected before unacceptable conditions requiring remedial work are reached.	Annually after FY 1986
Other Visitor Use	• Encourage development of basic social and physical/biological resource information by coordinating and cooperating with the Pacific Northwest Forest and Range Experiment Station and universities regarding opportunities for research projects and scientific studies which TRW may offer.	Annually
	• Approve proposed research projects and scientific studies which meet the test of management policy and issue appropriate permits authorizing use for stated purposes.	When proposals warrant
	• Divert research which is not dependent on the resources of TRW to areas outside wilderness boundaries.	Annually
	• Continue the existing monitoring efforts related to water quality, soil/vegetative cover and the northern spotted owl according to established schedules. Initiate new monitoring projects to complement the LAC system when completed.	Annually
Managerial		
Signs	• Develop a comprehensive signing plan for TRW's Trailed Zone.	By September 30, 1986
	• Install signs as prescribed in the comprehensive signing plan consistent with stated management policy. Directional signs will be placed at trailheads and trail junctions only. Regulatory and informational signs will be placed at each trailhead on a standard sign board and at locations where their placement is absolutely necessary to protect specific resource values or for visitor safety. Under no circumstance will signs be placed in either the Trailed or Trailless Zones to identify natural features or to provide onsite interpretation.	By September 30, 1987
Trails	• Convert the jeep road to full trail status, eliminate safety hazards and maintain it along with other sections of developed trail in the Trailed Zone.	By September 30, 1988

Wilderness Element	Proposed Action (as listed in Part VI of the draft plan)	Implementation Target Date
	• Construct 6 miles of new trail to replace 3 miles of existing trail sections which are too steep and in substandard condition. Design relocated sections to an 8 percent grade standard and follow state-of-the-art specifications for hiking/horseback riding trails.	By September 30, 1988
	• Rehabilitate and permanently "put to bed" 3 miles of abandoned trail (replaced by 6 miles of new trail construction).	By September 30, 1988
	• Modify the wilderness management plan to incorporate Trailed and Trailless Zone changes brought about by new trail construction.	By September 30, 1989
	• Annually maintain TRW's 20-mile trail system and solicit volunteer assistance from local organizations to accomplish trail maintenance work.	Annually
	• Post informational signs containing a "trail cutting" and resource protection message at all trailheads to encourage visitors to stay on the developed trails in "switchback" areas.	By September 30, 1987
Trailheads	• Prepare a trailhead project plan covering all three of TRW's existing trailheads and, following plan approval, develop the portal facilities described for each.	By September 30, 1988
	• Annually maintain TRW's three trailheads.	Annually
Camp Areas	• Close the narrow trail corridor on top of Table Rock to overnight camping and encourage visitors wishing to camp in this vicinity to use sites west of the Trailed Zone.	By September 30, 1986
	• Close the small saddle on Table Rock's southwest shoulder to overnight camping.	By September 30, 1986
	• Close the large saddle just west of Rooster Rock to overnight camping.	By September 30, 1986
Use Authorizations	• Issue surface use authorizations for proposed uses and activities which meet the test of management policy.	When proposals warrant
Land Tenure Adjustments	• Acquire the 80-acre inholding from Brazier Forest Products by purchase or exchange.	By September 30, 1989
Emergency Services	• Prepare and secure management approval for a TRW search and rescue plan. Establish specific criteria for helicopter use within the wilderness and include this criteria as operational guidelines in the plan. Update the plan annually to reflect current situations and conditions.	By September 30, 1986
	• Meet with the Clackamas County Sheriff annually to discuss updating the TRW search and rescue plan.	Annually
	• Provide first aid and CPR training to all seasonal personnel assigned primary work responsibility within TRW. Ensure that these personnel are made familiar with the current search and rescue procedures described in the approved search and rescue plan through the employee orientation process.	Annually
	• Initiate immediate search and rescue operations when action is essential to saving lives or expediting rescue.	When situations warrant
Fire	• (See Appendix B, Fire Management Plan for TRW)	Annually
Minerals	• Approve plans of operation, when submitted, which meet the test of management policy.	When plans submitted
Cultural Resources	• Establish LAC standards for cultural resource element indicators.	By September 30, 1986
	• Inventory the Trailed Zone to determine where existing conditions exceed LAC standards established for the cultural resource element indicators.	By September 30, 1987

Wilderness Element	Proposed Action (as listed in Part VI of the draft plan)	Implementation Target Date
	• Stabilize all areas identified in the initial Trailed Zone inventory as requiring remedial work.	By September 30, 1988
	• Conduct further cultural resource field examinations to produce a complete inventory of cultural resource sites within TRW.	By September 30, 1988
	• Conserve known cultural resource values within TRW through a variety of methods, including non-disclosure of site location data, public education and on-site protection.	Annually
	• Monitor key cultural resource element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.	Annually after FY 1986
Information and Education	• Develop a comprehensive information and education plan detailing how BLM will deliver its wilderness management message to the public.	By September 30, 1987
	• Refrain from "pushing" TRW on the public by carefully limiting the types and amounts of publicity released. Respond to requests without creating demand.	Annually
	• Develop maps, brochures and other printed material prescribed by the comprehensive information and education plan for TRW. Promote the "no-trace" visitation concept, the "pack-it-in, pack-it-out" concept and similar back-country etiquette advice in all printed material where appropriate.	Annually after FY 1987

Part VIII Environmental Assessment (OR-080-6-1)

Introduction

Prior to the Table Rock area's designation as a component of the National Wilderness Preservation System, impacts resulting from human use were generally adverse to the natural, scenic, cultural and recreation resources for which the area has come to be known. Left undesignated, these uses would have continued to reduce, and in some cases eliminate, many of area's unique values. The Proposed Action and other alternatives encompass a wide range of actions directed, in particular, toward managing human use within TRW.

Background information, including plan purpose, plan organization and area overview (location, access, boundary, size and ownership, unique attributes and general management situation) is covered in Part I. Wilderness management goals and basic management strategy are covered in Parts II and III, respectively.

The Proposed Action detailed herein is needed to fulfill the specific administrative mandates set forth in Public Law 88-577 (Wilderness Act) and Public Law 98-328 (Oregon Wilderness Act of 1984) and to serve as the basis for managing the natural, scenic, cultural and recreation resources of TRW.

This environmental assessment was prepared through an interdisciplinary team effort. The preparers and contributors are listed in Appendix C.

Alternatives Including The Proposed Action

Four alternatives are analyzed in this environmental assessment. These include a Proposed Action and three alternative programs of action. An alternatives summary highlighting key management actions of each alternative follows. For comparative purposes, a management alternatives spread-sheet providing a more detailed description of actions (across all alternatives) is shown in Figure 6.

The Proposed Action

This alternative places primary emphasis on resource protection with secondary emphasis on recreation use. The Limits of Acceptable Change (LAC) system would be established to monitor physical/biological and social conditions within TRW and to trigger management actions when a LAC standard is not being met. The intent of this alternative would be to maintain or enhance the area's

Figure 6 Table Rock Wilderness Management Alternatives Spread Sheet

Wilderness Element	Management Action by Alternative			
	Proposed Action (as listed in Part IV of the plan)	**Alternative A (no action)**	**Alternative B (emphasizes resource protection)**	**Alternative C (emphasizes recreation development and use)**
Physical/Biological				
Soil	• Establish LAC standards for soil element indicators.	No LAC standards developed.	Same as Proposed Action.	Same as Proposed Action.
	• Inventory the Trailed Zone to determine where existing conditions exceed LAC standards established for soil element indicators.	No inventory conducted.	Same as Proposed Action.	Same as Proposed Action.
	• Stabilize and, where feasible rehabilitate to as near natural a condition as possible all areas identified in the initial inventory as requiring remedial work.	No stabilization/ rehabilitation conducted.	Same as Proposed Action.	Same as Proposed Action.
	• Monitor key soil element indicators in the Trailed Zone so that changes can be detected before unacceptable conditions requiring remedial work are reached.	No monitoring conducted other than that needed to continue existing photoplot studies/ analysis.	Same as Proposed Action.	Same as Proposed Action.
Water	• Establish LAC standards for water element indicators.	No LAC standards developed.	Same as Proposed Action.	Same as Proposed Action.
	• Prohibit the establishment of "hardened" camp areas within riparian habitat through monitoring and use regulation.	No regulation of camp area establishment within riparian habitat.	Not applicable since overnight camping prohibited under this alternative.	No regulation of camp area establishment within riparian habitat.
	• Post notices at all trailheads advising visitors to treat water prior to use for consumptive purposes whenever a determination is made that water is not potable.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
	• Develop watering facilities for recreational livestock away from sources of surface water at the headwaters of Image Creek if livestock use increases to a level where stream banks and riparian vegetation are adversely affected or where water quality deterioration is detected and attributable to such use.	No watering facilities developed.	Not applicable since use of recreational livestock prohibited under this alternative.	Same as Proposed Action.
	• Monitor key water element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.	No monitoring conducted other than that needed to continue existing water quality testing.	Same as Proposed Action.	Same as Proposed Action.
Vegetation	• Establish LAC standards for vegetation element indicators.	No LAC standards developed.	Same as Proposed Action.	Same as Proposed Action.
	• Inventory the Trailed Zone to determine where existing conditions exceed LAC standards established for the vegetation element indicators.	No inventory conducted.	Same as Proposed Action.	Same as Proposed Action.
	• Stabilize and, where feasible, rehabilitate to as near natural a condition as possible all areas identified in the initial Trailed Zone inventory as requiring remedial work.	No stabilization/ rehabilitation conducted.	Same as Proposed Action.	Same as Proposed Action.

Wilderness Element	Management Action by Alternative			
	Proposed Action (as listed in Part IV of the plan)	**Alternative A (no action)**	**Alternative B (emphasizes resource protection)**	**Alternative C (emphasizes recreation development and use)**
	• Conduct further botanical field examinations to produce a complete inventory of plants inhabiting TRW.	No further botanical inventory conducted.	Same as Proposed Action.	Same as Proposed Action.
	• Encourage visitors to use portable cookstoves and refrain from building campfires through messages contained in the wilderness information and education program. Consider seasonal or year-round campfire prohibitions when fuelwood use, even with the information programs, appears to outstrip the annual accumulation.	No information and education program conducted to encourage use of portable cookstoves and to preserve down and dead vegetative material.	1. Require visitors to use portable cookstoves. 2. Prohibit use of campfires within TRW.	1. No regulation requiring use of cookstoves. 2. No prohibition of campfires.
	• Monitor key vegetation element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.	No monitoring conducted other than that needed to continue existing photoplot studies/analysis.	Same as Proposed Action.	Same as Proposed Action.
Fish and Wildlife	• Establish LAC standards for fish and wildlife element indicators.	No LAC standards developed.	Same as Proposed Action.	Same as Proposed Action.
	• Conduct further wildlife field examinations to produce a complete inventory of animals inhabiting or using TRW's habitat.	No further wildlife inventory conducted other than that needed to continue existing northern spotted owl survey.	Same as Proposed Action.	Same as Proposed Action.
	• Continue northern spotted owl survey work within TRW to gain as much information on this State of Oregon "threatened" species as possible.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
	• Allow reintroduction of peregrine falcons within TRW if the Oregon Department of Fish and Wildlife recommends that a hacking program should be initiated at this site.	No hacking program for peregrine falcons conducted.	Same as Proposed Action.	No hacking program for peregrine falcons conducted.
	• Monitor key fish and wildlife element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.	No monitoring conducted other than that needed to continue existing northern spotted owl survey.	Same as Proposed Action.	Same as Proposed Action.
Social				
Recreation Use	• Establish LAC standards for recreation use element indicators.	No LAC standards developed.	Same as Proposed Action.	Same as Proposed Action.

Wilderness Element	Management Action by Alternative			
	Proposed Action (as listed in Part IV of the plan)	**Alternative A (no action)**	**Alternative B (emphasizes resource protection)**	**Alternative C (emphasizes recreation development and use)**
	• Gather recreation use data through visitor surveys and other data gathering methods to determine if and when existing social conditions exceed LAC standards established for recreation use element indicators.	No recreation visitor surveys conducted.	Same as Proposed Action.	Same as Proposed Action.
	• If visitor surveys and other data gathered from TRW users indicate that established LAC standards for social conditions are presently exceeded, implement whatever visitor management actions are necessary to bring use levels in line with the affected LAC standards.	No regulation of visitation.	1. Regulate use through implementation of a visitor permit system. 2. Prohibit use of recreational livestock. 3. Prohibit overnight camping.	No regulation of visitation.
	• To promote an atmosphere of visitor courtesy and respect, require recreational livestock be held overnight away from traditionally used camp areas and domesticated pets be physically restrained or under reliable voice control at all times.	No regulation of recreational livestock or domesticated pets to enhance visitor expectations.	Same as Proposed Action except not applicable to recreational livestock since use of recreational livestock prohibited under this alternative.	Same as Proposed Action.
	• Monitor key recreation use element indicators in the Trailed Zone so that changes can be detected before unacceptable conditions requiring remedial work are reached.	No monitoring conducted.	Same as Proposed Action.	Same as Proposed Action.
Other Visitor Use	• Encourage development of basic social and physical/biological resource information by coordinating and cooperating with the Pacific Northwest Forest and Range Experiment Station and universities regarding opportunities for research projects and scientific studies which TRW may offer.	No promotion of research projects and scientific studies.	Same as Proposed Action.	Same as Proposed Action.
	• Approve proposed research projects and scientific studies which meet the test of management policy and issue appropriate permits authorizing use for stated purposes.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
	• Divert research which is not dependent on the resources of TRW to areas outside wilderness boundaries.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
	• Continue the existing monitoring efforts related to water quality, soil/vegetative cover and the northern spotted owl according to established schedules. Initiate new monitoring projects to complement the LAC system when completed.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Managerial				
Signs	• Develop a comprehensive signing plan for TRW's Trailed Zone.	No comprehensive sign plan developed.	Same as Proposed Action.	Same as Proposed Action.

Wilderness Element	Management Action by Alternative			
	Proposed Action (as listed in Part IV of the plan)	**Alternative A (no action)**	**Alternative B (emphasizes resource protection)**	**Alternative C (emphasizes recreation development and use)**
	• Install signs as prescribed in the comprehensive signing plan consistent with stated management policy. Directional signs will be placed at trailheads and trail junctions only. Regulatory and informational signs will be placed at each trailhead on a standard signboard and at locations where their placement is absolutely necessary to protect specific resource values or for visitor safety. Under no circumstance will signs be placed in either the Trailed or Trailless Zones to identify natural features or to provide on-site interpretation.	No signs installed other than replacement of existing signs vandalized or damaged by natural forces.	Same as Proposed Action.	Same as Proposed Action except informational and educational signs placed as appropriate within TRW.
Trails	• Convert the jeep road to full trail status, eliminate safety hazards and maintain it along with other sections of developed trail in the Trailed Zone.	No conversion of jeep road to full trail status.	Rehabilitate the jeep road and "put to bed."	Same as Proposed Action.
	• Construct 6 miles of new trail to replace 3 miles of existing trail sections which are too steep and in substandard condition. Design relocated sections to an 8 percent grade standard and follow state-of-the-art specifications for hiking/horseback riding trails.	No new trail construction.	Same as Proposed Action (to eliminate resource damage created by the existing trail route).	Same as Proposed Action except additional mid-slope trails constructed.
	• Rehabilitate and permanently "put to bed" 3 miles of abandoned trail (replaced by 6 miles of new trail construction).	Not applicable since no new trail constructed under this alternative.	Same as Proposed Action.	Same as Proposed Action.
	• Modify the wilderness management plan to incorporate Trailed and Trailless Zone changes brought about by new trail construction.	Not applicable since no new trail constructed under this alternative.	Same as Proposed Action.	Same as Proposed Action.
	• Annually maintain TRW's 20-mile trail system and solicit volunteer assistance from local organizations to accomplish trail maintenance work.	Same as Proposed Action except only the existing 10-mile hiking/horseback riding trail system would be maintained.	Same as Proposed Action.	Same as Proposed Action except additional mid-slope trails included in maintenance plan.
	• Post informational signs containing a "trail cutting" and resource protection message at all trailheads to encourage visitors to stay on the developed trails in "switchback" areas.	No additional informational signs posted.	Same as Proposed Action.	Same as Proposed Action.
Trailheads	• Prepare a trailhead project plan covering all three of TRW's existing trailheads and, following plan approval, develop the portal facilities described for each.	No trailhead project plan prepared.	Same as Proposed Action.	Same as Proposed Action except additional trailhead at southern end of jeep road included.
	• Annually maintain TRW's three trailheads.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action except four trailheads maintained.
Camp Areas	• Close the narrow trail corridor on top of Table Rock to overnight camping and encourage visitors wishing to camp in this vicinity to use sites west of the Trailed Zone.	No camping regulation implemented.	Same as Proposed Action since overnight camping prohibited under this alternative. (Also visitors will not be encouraged to use sites west of the Trailed Zones.)	No camp site closure.

Wilderness Element	Management Action by Alternative			
	Proposed Action (as listed in Part IV of the plan)	**Alternative A (no action)**	**Alternative B (emphasizes resource protection)**	**Alternative C (emphasizes recreation development and use)**
	• Close the small saddle on Table Rock's southwest shoulder to overnight camping.	No camping regulation implemented.	Same as Proposed Action since overnight camping prohibited under this alternative.	No camp site closure.
	• Close the large saddle just west of Rooster Rock to overnight camping.	No camping regulation implemented.	Same as Proposed Action since overnight camping prohibited under this alternative.	No camp site closure.
Use Authorizations	• Issue surface use authorizations for proposed uses and activities which meet the test of management policy.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Land Tenure Adjustments	• Acquire the 80-acre inholding from Brazier Forest Products by purchase or exchange.	No acquisition of non-Federal lands.	Same as Proposed Action.	No acquisition of non-Federal lands.
Emergency Services	• Prepare and secure management approval for a TRW search and rescue plan. Establish specific criteria for helicopter use within the wilderness and include this criteria as operational guidelines in the plan. Update the plan annually to reflect current situations and conditions.	No search and rescue plan prepared.	Same as Proposed Action except no helicopter use.	Same as Proposed Action.
	• Meet with the Clackamas County Sheriff annually to discuss updating the TRW search and rescue plan.	No formal meetings with with Clackamas County Sheriff.	Same as Proposed Action.	Same as Proposed Action.
	• Provide first aid and CPR training to all seasonal personnel assigned primary work responsibility within TRW. Ensure that these personnel are made familiar with the current search and rescue procedures described in the approved search and rescue plan through the employee orientation process.	Same as Proposed Action except there would be no formal search and rescue plan to reference.	Same as Proposed Action.	Same as Proposed Action.
	• Initiate immediate search and rescue operations when action is essential to saving lives or expediting rescue.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Fire	• (See Appendix B, Fire Management Plan for TRW)	Same as Proposed Action.	Same as Proposed Action except prescribed fire incorporated to enhance vegetative diversity where appropriate.	Same as Proposed Action.
Minerals	• Approve plans of operation, when submitted, which meet the test of management policy.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Cultural Resources	• Establish LAC standards for cultural resource element indicators.	No LAC standards developed.	Same as Proposed Action.	Same as Proposed Action.
	• Inventory the Trailed Zone to determine where existing conditions exceed LAC standards established for the cultural resource element indicators.	No inventory conducted.	Same as Proposed Action.	Same as Proposed Action.
	• Stabilize all areas identified in the initial Trailed Zone inventory as requiring remedial work.	No stabilization conducted.	Same as Proposed Action.	No stabilization conducted.

Wilderness Element	Management Action by Alternative			
	Proposed Action (as listed in Part IV of the plan)	**Alternative A (no action)**	**Alternative B (emphasizes resource protection)**	**Alternative C (emphasizes recreation development and use)**
	• Conduct further cultural resource field examinations to produce a complete inventory of cultural resource sites within TRW.	No further cultural resource inventory conducted.	Same as Proposed Action.	Same as Proposed Action.
	• Conserve known cultural resource values within TRW through a variety of methods, including non-disclosure of site location data, public education and on-site protection.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
	• Monitor key cultural resource element indicators in both the Trailed and Trailless Zones so that changes can be detected before unacceptable conditions requiring remedial work are reached.	No monitoring conducted other than that needed to conserve known cultural resource values.	Same as Proposed Action.	Same as Proposed Action.
Information and Education	• Develop a comprehensive information and education plan detailing how BLM will deliver its wilderness management message to the public.	No comprehensive information and education plan developed.	Same as Proposed Action.	Same as Proposed Action.
	• Refrain from "pushing" TRW on the public by carefully limiting the types and amounts of publicity released. Respond to requests without creating demand.	Same as Proposed Action.	Same as Proposed Action.	Promote visitation and use and do not limit the types and amounts of publicity released.
	• Develop maps, brochures and other printed material prescribed by the comprehensive information and education plan for TRW. Promote the "no-trace" visitation concept, the "pack-it-in, pack-it-out" concept and similar back-country etiquette advice in all printed material where appropriate.	Same as Proposed Action except there would be no formal information and education plan to reference.	Same as Proposed Action.	Same as Proposed Action.

natural, cultural and scenic values through use regulation and stabilization/rehabilitation of disturbed areas. Resource inventories would be completed and analyzed. Research and scientific study would be encouraged. Regulatory, informational and directional signs would be installed as appropriate. New sections of trail would be constructed to replace trail sections which are substandard. Abandoned trail sections no longer needed would be rehabilitated and permanently "put to bed." The 20-mile trail system would be maintained annually. All trailheads would be improved and maintained. Several traditionally used camp sites would be closed to overnight camping. Use authorizations would be issued where appropriate. The 80-acre parcel of non-Federal land would be acquired. A search and rescue plan would be developed and implemented. A fire management plan would be implemented. Plans of operation for oil and gas leases would be approved (when consistent with wilderness management policy) if/when submitted. A comprehensive information and education plan would be developed and implemented.

Alternative A (no action)

This alternative establishes no change from the present level of management. The LAC system would not be developed. Physical/biological and social conditions would not be monitored beyond that being conducted at present. The intent of this alternative would be to allow natural, cultural and scenic values within the Trailed Zone to deteriorate at a rate commensurate with visitation and in the absence of use regulation and stabilization/rehabilitation of disturbed areas. Resource inventories would not be conducted, but existing monitoring programs would be continued. Research and scientific study would not be encouraged. Other than replacement of vandalized or damaged signs, signs would not be installed. New sections of trail, trailhead improvement and other recreation development would not be undertaken. Annual trail maintenance would continue. All traditionally used camp areas would remain open to overnight camping. The 80-acre parcel of non-Federal land would not be acquired. A fire management plan would be implemented. Plans of operation for oil and gas leases would be approved (when consistent with wilderness management policy) if/when submitted. A comprehensive information and education plan would not be developed and implemented, but an access map would be prepared for public distribution.

Alternative B

This alternative emphasizes resource protection. It is basically the same as the Proposed Action, except use would be regulated through implementation of a visitor permit system, use of recreational livestock would be prohibited, overnight camping would be prohibited, visitors would be required to use portable cookstoves as open campfires would be prohibited, the jeep road would be rehabilitated and "put to bed," and prescribed fire would be incorporated to enhance vegetative diversity where appropriate.

Alternative C

This alternative emphasizes recreation development and use. It is basically the same as the Proposed Action, except there would be no closure of several traditionally used camp sites or camping restrictions in riparian habitat, new mid-slope trails and a new trailhead at the southern end of the jeep road would be constructed, the 80-acre parcel of non-Federal land would not be acquired, informational and educational signs would be placed within TRW at appropriate locations, and visitation and use would be actively promoted through a comprehensive plan emphasizing recreation.

Affected Environment

Physiography

TRW is located in the western foothills of the Cascade Mountain Physiographic Province in Clackamas County, Oregon. Occupying nearly two-thirds of the Cascade Range, these western foothills are made up almost entirely of slightly deformed and partly altered volcanic flows and pyroclastic rocks that range in age from late Eocene to late Miocene. These rocks have been maturely dissected so that the only evidence that remains of the many volcanoes from which they were erupted is an occasional remnant neck or plug that marks a former volcanic vent. Table Rock is a classic example of this. During Tertiary time, this area subsided intermittently, with irregularly piling on of the great mass of volcanics. Westward-flowing streams became impeded, and lakes formed east of the foothills. The dissection of the western foothills began then, and the dendritic drainage pattern of today was established.

Exposed rocks in TRW are principally basalt with andesite, coarse mudflow breccia, and lapilli tuff, locally altered to greenstone. The lower part of each

basalt flow commonly has a well developed columnar structure, and the upper part has a thinner columnar jointing or hackly jointing. It is unknown what underlies these rocks at depth. The rocks in TRW lie along the eastern flank of an anticline and dip an average of 10 degrees to the east. The axis of this anticline, located approximately one mile west of the Table Rock area, trends north-northeast and dips to the north.

Topographic elevation in TRW ranges from just under 1,300 feet due west to nearly 4,900 feet at the top of Table Rock. Thus, the local topographic relief is approximately 3,600 feet. The main ridgeline roughly runs in a northwest-southeast direction to Rooster Rock then jogs to a northerly direction.

Because of its location away from industrialization, the air quality in TRW is excellent. With prevailing winds from the west, the high Cascade Range just east forms a distinct weather barrier. Precipitation in the form of rainfall and snow is moderate to heavy with about 50 to 80 inches annually. The average monthly low and high temperatures for 1985 at Detroit weather station were 34.6 degrees and 65 degrees, respectively.

There were no mining claims in TRW as of midnight, June 26, 1984. However, the southern part of the western foothills, south of TRW, has historically produced mercury, gold, silver, copper, lead, and zinc. There are six oil and gas leases that lie within TRW. Oil and gas potential depends upon the presence or absence of marine deposits at depth. No deep drilling has been done in TRW or the immediate vicinity. There are no surface geothermal manifestations such as hot springs, thermal wells, or younger volcanic lavas in the area.

Soils

Soils within TRW's Trailed Zone occur on a moderately sloping ridge nose. Soil parent materials consist of the breccia, tuff and andesite described in the physiography discussion.

The developed trail system passes through three major soil climatic zones. The first zone, mesic (1,200 to 1,700 feet), consists of soils with topsoils having thicknesses of 8 inches or more, clayey subsoils and deep depths. The second zone, frigid (1,700 to 2,800 feet), consists of soils having topsoils 4 to 8 inches thick, gravelly textures and 20 to 40 inches deep. The third zone, cryic (2,800 to 4,600 feet), consists of soils with topsoils 4 inches or less in thickness, very gravelly textures and depths of less than 20 inches. Soil fertility levels are very low in the cryic zone.

Soils are subject to compaction when moist. Compacted soils are highly subject to surface runoff and erosion.

Landscape Character

TRW is an upland timber landscape that is generally rugged. Landforms include sharp ridges, narrow draws with steep sideslopes, and occasional terraces and meadows. Rock outcrops are numerous and are most apparent along ridgetops. Table Rock and Rooster Rock are prominent features of the area. The top of Table Rock offers expansive views of the surrounding landscape and distant views of Mt. Hood, Mt. Jefferson, and other peaks in the high Cascade Range of Oregon, Washington and northern California.

Landscape color varies from a light tan soil color to the light gray and dark brown colors of rock outcrops. Dark green is the prevailing vegetative color. Water is not apparent in most views of the Table Rock landscape, but water is present in the form of headwater streams, some of which are spring fed. Bull Creek has two waterfalls which are 60 and 100 feet high. Overstory vegetation is primarily Douglas-fir and noble fir. Even though the vegetative texture is very even, the rock outcrops, meadows, and rugged terrain give an overall textural appearance that is medium-coarse. The understory is composed of a wide variety of shrubs and many species of flowering plants. Cultural modifications within TRW include two small clearcut areas, a few small areas which were disturbed by mortality salvage/commercial thinning operations, short sections of jeep road and developed hiking trails.

Water Resources

TRW drains into three major streams: Camp Creek to the east, Table Rock Fork to the north and west, and Molalla River to the west and south. Numerous unnamed tributaries flow into Camp Creek, Image Creek and Table Rock Fork. The following named tributaries flow into the Molalla River: Iron Creek, Lake Creek, Scorpion Creek, Hay Barn Creek, Dungeon Creek, Avalanche Creek, and Bull Creek. Three creeks within TRW are perennial. These include Bull Creek, Image Creek and an unnamed tributary near the Table Rock Trailhead.

Preliminary results of water analysis from Image Creek and the unnamed tributary near the Table Rock Trailhead indicate that the water is of excellent chemical quality (being very low in minerals). Total coliform bacteria levels, as detected in monthly sampling from these two tributaries, tend to rise as the summer season progresses. These bacteria

levels are often in excess of Federal and State of Oregon primary drinking water standards. Fecal coliform bacteria concentrations follow the same seasonal pattern as total coliform organisms, tending to be low during fall, winter and spring, and increase with rising temperatures and decreased streamflows. Concentrations are at times in excess of 200 colonies per 100 milliliters of water at some points. These two streams will be the primary source of surface water in the wilderness area since the developed trail system crosses or is adjacent to them.

There are many springs within TRW, but an evaluation has not been done to determine the extent of the groundwater resource within wilderness boundaries.

Vegetation

Communities and Habitats

TRW is an area of natural ecology that is especially diverse in specialized plant community habitats. Between 1,275 and 4,881 feet in elevation, the area's rugged terrain and diverse physiography possesses a multitude a natural values within a relatively concentrated area. The area represents one of the last remnants of undeveloped forest lands within the Molalla River drainage.

The outstanding diversity of plant species results from the presence of four distinct vegetation zones within a relatively short vertical sequence of geologic features. The exposed bedrock, talus rock, slide scarps, sheer cliffs, basaltic outcrops, and crags add to the abundance of floral micro-habitat types. Within each of the vegetation zones (alpine, subalpine, montane, and foothills) both biotic plant and topographic plant successional (seral) patterns occur, representing unique plant community life cycles. These communities are considered unique because of the number of sensitive plant species which occur within close range of each other.

Sharp elevational differences, more than any other habitat factor, regulate the plant species most commonly observed by wilderness visitors.

Alpine: Paintbrush, Phlox, Comandra
Subalpine: Beargrass, Gentian, Manzanita
Montane: Rhododendron, Huckleberry, Cascade Lily
Foothills: Ferns, Wild Rose, Iris, Ocean Spray

Although field examinations have been undertaken, a complete inventory of plants inhabiting TRW has not been compiled by BLM botanists to date. However, Figure 7 lists many plants known to occur within TRW boundaries.

Figure 7 Plant Species Known To Occur Within TRW Boundaries

Trees

Big-leaf Maple
Bitter Cherry
Douglas-fir
Mountain Ash
Mountain Hemlock
Noble Fir
Red Alder
Red Silver Fir
Sitka Alder
Western Hemlock
Western Redcedar
Western White Pine
Yellow Cedar

Ferns

Bracken Fern
Deer Fern
Lady Fern
Lace Fern
Licorice Fern
Maidenhair Fern
Rock-brake
Sword Fern

Shrubs

Alaska Blueberry
Blue Huckleberry
Dwarf Bilberry
Dwarf Bramble
Elderberry
Manzanita
Mountain Juniper
Ocean Spray
Oregon Boxwood
Oregon Grape
Oregon Wintergreen
Red Huckleberry
Rhododendron
Salal
Salmonberry
Serviceberry
Stink Currant
Swamp Currant
Thimbleberry
Trailing Blackberry
Vine Maple
Wild Woodland Rose

Other Vascular Plants

Alpine Mitrewort
Aster
Baneberry
Bead Lily
Beargrass
Bedstraw
Bent Grass
Bleeding Heart
Bigleaf Sandwort
Buckwheat
Cascade Campion
Cascade Lily
Cliff Penstemon
Columbine
Comandra
Coolwort Foamflower
Coral-root
Enchanter's Nightshade
Evergreen Violet
Everlasting
Fairy Bells
False Bugbane
False Lily-of-the-Valley
Field Larkspur
Fleabane
Gentian
Gold Thread
Harebell
Hawkweed
Horsetail
Inside-out-Flower
Iris
Kennickinnick
Large False Solomon's Seal
Leafy Lousewort
Lousewort
Lyall's Windflower
Miner's Lettuce
Mist Maiden
Mountain Arnica
Nemophilia
Northern Valerian
Paintbrush
Pathfinder
Pinesap
Prince's Pine
Pyrola
Rattlesnake Plantain
Red Fescue
Rosy Twisted-stalk
Rusty Saxifrage
Saxifrage
Sedge
Smallflowered Alumroot
Small Wood Violet
Snowline Pyrola
Spreading Phlox
Starflower
Starry False Solomon's Seal
Sweet Cicily
Trillium
Twinflower
Twisted Stalk
Vanilla Leaf
Wall Flower
Wall Lettuce
Western Twayblade
White-veined Shin-leaf
Wild Ginger
Willow Herb
Windflower
Woodland Violet
Wood Rush
Wood Sorrel
Wooly Sunflower

Plants of Special Interest

Specialized micro-habitats within three of the four vegetation zones support populations of "sensitive" plant species. Sensitive plants are species that could become federally listed as endangered or threatened in the foreseeable future. The sensitive species in the TRW are shown in Figure 8.

All floral areas within TRW that maintain sensitive plant species are fragile ecological sites. "Watch listed" plants are rare species being monitored under the auspices of the Salem District's 10-year management plan. Gorman's Aster and Oregon Sullivantia are federally listed as "candidate" threatened species requiring further research information to support final listing. Federal monitoring species like Clackamas Iris and Smooth-leaved Douglasia are rare plants annually undergoing field reviews in order to determine any detrimental loss of habitats and/or populations. If such losses occur, the U.S. Fish and Wildlife Service will re-evaluate the status of these species based on additional research that can be done, or by the degree of recent changes in land use that have caused the decline.

Specialized habitats required for known sensitive plant species in the wilderness are shown in Figure 9.

Animals

Terrestrial Wildlife

Introduction

TRW provides habitat for a wide variety of wildlife. Some unusual features within wilderness boundaries are important wildlife habitats. First, and most important, is the large stand of undisturbed forest which provides seclusion for many species. Second, the physiographic diversity, such as steep rock cliffs, talus, high mountain meadows, scattered old-growth trees, and southernly aspect, provides varied habitats on which many species depend.

Intensive wildlife or habitat surveys have not been conducted within TRW. The only species that has been studied to any extent is the northern spotted owl. Most other wildlife specifically identified within TRW are incidental sitings obtained during spotted

Figure 8 - Sensitive Species Within TRW

Aster gormanii	Gorman's Aster	Federal Threatened (Subalpine Zone)
Douglasia laevigata var. laevigata	Smooth-leaved Douglasia	Federal Monitoring (Subalpine Zone)
Iris tenuis	Clackamas Iris	Federal Monitoring (Foothills Zone)
Isopyrum hallii	Hall's Isopyrum	Watch Listed (Montane Zone)
Lilium washingtonianum	Shasta Lily	Watch Listed (Alpine Zone)
Pleuricospora fimbriolata	Fringed Pinesap	Watch Listed (Montane Zone)
Sullivantia oregana	Oregon Sullivantia	Federal Threatened (Foothills Zone)

Figure 9 - Specialized Habitats for Known Sensitive Plants

Aster gormanii	Talus rock and slide scarps
Douglasia laevigata	Sheer cliffs
Iris tenuis	Basaltic outcrops and rock falls
Isopyrum hallii	Wet seeps and springs
Lilium washingtonianum	Exposed bedrock and thin-soiled rock exposures
Pleuricospora fimbriolata	Thick duff on forest floor
Sullivantia oregana	Wet seeps and springs

owl surveys or other field trips. Figure10 lists animal species known to occur, and Figure 11 lists animal species thought to occur within TRW.

Mammals

Several large mammals can be found within TRW. A small herd of Roosevelt elk is known to use TRW's lower south slopes. Isolated elk sign have also been observed near the Peachuck Lookout Trailhead. The elk population is increasing in the Molalla River drainage, and TRW is an important habitat expansion area. Black-tailed deer are common throughout the area. The lower south-facing slopes are important winter range for both deer and elk. Cougar, which feed primarily on deer, are expected to occur here, but because of their wide home range, only two or three cougar may inhabit the area. Black bear have also been observed and can be expected to den within TRW boundaries because of the area's remoteness.

Small mammals are much more numerous. Mountain beaver, a small borrowing rodent, is abundant in moist, brushy areas. A few pocket gophers occur in and around the high meadows. Snowshoe hares are common at higher elevations and feed on the herbaceous vegetation in meadows and brushy areas. Hares and gophers help maintain the open meadows by hedging the invading trees and brush. The northern flying squirrel is thought to nest in cavities in old-growth trees. Pika, a small rabbit-like mammal, inhabits the talus, particularly below Table Rock. Pika is a protected species by the Oregon Department of Fish and Wildlife. Coyotes and bobcat, which prey on many of these small mammals, also inhabit the area.

Although porcupine, a major food item of the fisher, are still common within TRW, fishers have been extirpated in most of western Oregon. It is uncertain if the pine martin still inhabit the TRW vicinity.

Birds

A variety of birds occupy TRW. Turkey vultures are often seen soaring over the area, and they may roost in some of the large old-growth trees in the lower elevations. Red-tailed hawks nest in the dense forest canopy and feed on the abundant rabbit and rodent population in and around TRW. Great horned owls have been heard during the nighttime northern spotted owl surveys. They also nest in the large old-growth trees, especially at the margin of a forest stand. Pygmy owls nest in the small cavities excavated by woodpeckers. Pileated woodpeckers have been heard along Image Creek and the trail system. These large woodpeckers excavate sizeable cavities in trees which other species eventually use. Large, decadent trees and snags are their preferred nesting sites. Pileated woodpeckers primarily feed on carpenter ants found in the area's abundant down logs.

Song birds are probably the most common birds within TRW, but only a few have been recorded. Robins and varied thrushs are very common. Vaux's swift are seen in the evenings flying above the tree tops. These birds nest in the hollow cavities of large, old-growth trees. Winter wrens inhabit the brushy understory. Nighthawks can be seen at night swooping for flying insects. These birds nest directly on the ground or on bare rock outcrops.

Reptiles and Amphibians

Few reptiles and amphibians have been observed within TRW. Small streams and wet areas are important habitat for this group of animals. Pacific tree frogs and yellow-leg frogs have been found in a swampy area at TRW's edge. Tailed frogs and Pacific giant salamanders were found in Image Creek during recent stream surveys. Rough-skinned newt were observed several times along the developed trail system. They lay their eggs in the still water of springheads and streams. After egg laying, the newt can be found wandering throughout the cooler area of the forest far from water. Pacific giant salamanders also wander in cool, shady forest areas. These large salamanders still require cold, clean water to spawn.

A western terrestrial garter snake was observed along the trail near the top of Table Rock.

Sensitive, Threatened and Endangered Species

Although no peregrine falcons have been sited in the area, Table Rock is potential nesting habitat. The vertical rock faces provide a few secluded nesting sites. The Oregon Department of Fish and Wildlife identified the Table Rock area as having moderate potential for falcon reintroduction. Peregrine falcons that nested in forested areas were thought to feed on band-tailed pigeons which are still common in the TRW vicinity.

A pair of golden eagles are nesting within five miles of TRW and have been observed soaring above the west edge of the area. These eagles probably hunt in the open meadows and along TRW's upper ridges.

The northern spotted owl, a threatened species in Oregon, was found near the northeastern edge of TRW during a survey conducted along the Table Rock Road in 1976. The area has been surveyed five different years since 1976. One pair and two single birds were heard in three of those survey

years. Surveys of the interior of TRW have not been conducted to date.

The wolverine is also listed as threatened by the Oregon Department of Fish and Wildlife. Historically, wolverines probably occurred within TRW. Because the wolverine travels over a wide area, verification of its presence within the area today would be difficult.

Figure 10 Animal Species Known To Occur Within TRW

Mammals	Birds
Roosevelt elk	Turkey vulture
Black-tailed deer	Red-tailed hawk
Black bear	Great horned owl
Coyote	Pygmy owl
Bobcat	Common raven
Porcupine	Pileated woodpecker
Snowshoe hare	Robin
Mountain beaver	Varied thrush
Pika	Vaux's swift
	Tree Swallow
Reptiles and Amphibians	Winter wren
	Blue grouse
Western terrestrial garter snake	**Sensitive, Threatened and Endangered Species**
Pacific tree frog	
Yellow-leg frog	Northern spotted owl
Tailed frog	
Rough-skinned newt	

Figure 11 Animal Species Thought To Occur Within TRW

Mammals	Birds
Cougar	Goshawk
Red-backed tree mouse	Ruff grouse
Trowbridge shrew	Band-tailed pigeon
Northern pocket gopher	Screech owl
Douglas squirrel	Water oozel
Brush rabbit	Red crossbill
	Harry woodpecker
Reptiles and Amphibians	**Sensitive, Threatened and Endangered Species**
Red-legged frog	
Oregon slender salamander	Golden eagle

Fish

TRW has at least three perennial streams capable of supporting aquatic vertebrates. These include Bull Creek, Image Creek and an unnamed tributary near the Table Rock Trailhead.

Preliminary results of stream sampling within TRW indicate a cutthroat trout population only in Image Creek. This cutthroat trout population is low in numbers, with limited production based on lack of smaller-sized fish. At least one small cutthroat per pool resides in Image Creek; however, lack of legal-sized fish (over 6 inches in length) would preclude the presence of a fishery. TRW's other perennial streams do not have fish populations but do support populations of Pacific giant salamanders and tailed frogs.

The macroinvertebrate community within TRW (based on sampling conducted on a nearby stream outside the wilderness boundary) is probably fragile. The invertebrate populations in the nearby stream were low in numbers, due primarily to low alkalinity which fosters a low level of productivity. Although the macroinvertebrate community was representative of good quality water, the potential to support a productive fishery was poor due to a low food supply. The TRW situation is similar.

Cultural Resources

Archeological

The northwestern Oregon Cascades were utilized in aboriginal times by Native American groups residing for most of the year in the river valleys. A number of prehistoric sites occur within TRW. The Table Rock Historic Trail (that portion of the presently developed trail system in existence prior to 1950) is part of an extensive system of ridgetop trails which served as travel and trade routes for the Indian inhabitants of the Willamette Valley, the upland river valleys, and eastern Oregon. Two lithic scatter sites associated with the trail may represent the campsites of aboriginal hunters, traders and travelers. Table Rock and Rooster Rock are portrayed in some local Indian legends as prominent figures. The occurrence of a petroglyph within the wilderness may indicate religious significance and use of the area by the Native American peoples. The following sites have been identified within TRW:

35CL25—This lithic scatter site contains basalt and obsidian flakes and tools. This site is being impacted by hikers and campers through artifact collection, fire-ring construction and camping activities due to its trailside location.

35CL34—This trail/lithic scatter/rock carving site consists essentially of the entire Table Rock Historic Trail. Material in the site consists of isolated pieces of detritus of both a prehistoric and historic nature. The site shows evidence of use as a cleared

walking trail approximately three feet wide. Site condition ranges from poor to good, with impacts generally being the result of hikers and hunters collecting material. A bas-relief of an Indian woman with a bear on her back or of a human and an animal figure was identified as occurring along the trail, on a large boulder. The trail and the petroglyph were reported and recorded on General Land Office survey maps and notes in 1882 and 1897. The petroglyph has apparently been obliterated by gunshot vandalism and natural deterioration starting prior to 1955.

35CL41—This lithic scatter site consists of a thin scatter of flake material. This site is in good condition but occurs next to the Table Rock Historic Trail.

Sites 35CL25, 35CL34, and 35CL41 were determined eligible for inclusion in the National Register of Historic Places, with the State Historic Preservation Office concurring on May 8, 1979, as one site called the Table Rock Trail site.

Immediately outside the wilderness area, site 35CL38 has been recorded. This dense lithic scatter site spreads over a 20-acre terrace, has been disturbed by road construction and timber cutting and artifact collecting, but portions of the site remain undisturbed. Due to the paucity of data on the prehistoric human occupation and utilization of the northwest Cascades area and data on the relationship of aboriginal inhabitants of the upper Molalla River area to people inhabiting eastern Oregon and the Willamette Valley, the data contained in the undisturbed portions of this site have a high potential to contribute significantly to knowledge regarding prehistoric lifeways and, as such, would be eligible for inclusion in the National Register of Historic Places. The site occurs adjacent to the TRW boundary.

Historical

The Table Rock Historic Trail continued in use by Indians and Euro-Americans into historic times. The Molalla Indian people had entered this area by at least 1810 or 1820 and may have used the trail to trade with and contact Indian peoples in eastern Oregon. Homesteaders and prospectors used the trail from prior to 1880 until the turn of the century. General Land Office surveyors used the trail and mapped and recorded the trail and camps along the trail in 1882 and 1897.

The Table Rock Historic Trail figured prominently in early fire protection efforts in the north Cascades. Material to build the first lookout at Peachuck was packed in over the trail in 1918. The current Peachuck Lookout structure, a wood and stone two-story building, was constructed in 1932 by the Clackamas Marion Fire Protection District, with material packed in over the South Fork Molalla River Trail. The Table Rock Historic Trail was used to supply Peachuck Fire Lookout during its occupation as a fire lookout until 1964.

The Table Rock Historic Trail reportedly was used by Indians from the Warm Springs Reservation to reach traditional huckleberry picking areas near Rooster Rock and Table Rock in the 1920's. The Indians camped at their traditional campsite at Image Camp. During the Depression, Euro-Americans used the trail and campsite at Image Camp to pick huckleberries for commercial sale in the towns to supplement incomes dependent upon a sagging logging economy. Huckleberry growth in this location was traditionally encouraged by the Native Americans and later by the Euro-Americans through regular purposeful burning of the slopes within TRW to prevent timber growth.

Logging in the vicinity of TRW has occurred since the 1930's and in 1943, Weyerhaeuser Company built a bridge over Cooper Creek, just outside the wilderness area, adjacent to the present Old Bridge Trailhead, to open up the Table Rock area to timber harvest. An earlier bridge, called Sheep Bridge, had been built over Table Rock Fork in the mid-1930's as part of the South Fork Molalla River Trail. Sheep Bridge is currently visible as stone abutments approximately 300 feet upstream from the currently used bridge, while Copper Creek Bridge, used until 1976, is completely intact and visible from the current bridge approximately 100 feet upstream. Copper Creek Bridge is a timber deck arch, a type of construction unusual for crossing short spans and not seen elsewhere in this vicinity. However, the bridge is less than 50 years old and, as such, would need to be exceptional in its method of construction and/or its engineering to be eligible for the National Register of Historic Places.

Recreation

Activity Preferences

Day hiking, backpacking and horseback riding are the primary summer-month recreation activities preferred by TRW visitors. Horseback riding opportunities are limited, for the most part, to the Trailed Zone on TRW's main east-west ridgeline. The extensive talus within the Trailed Zone below Table Rock's north face is difficult to traverse with horses, and the excessively steep trail extending into the headwaters of Image Creek from Rooster Rock all but precludes horse access. Cross-country skiing and snowshoeing, though much less prevalent, are the preferred winter-month activities. Most visitors ski or snowshoe into the area on the

developed trails, with most activity in the Trailed Zone extending from the Table Rock Trailhead to the saddle just southwest of Table Rock. Other recreation pursuits in which visitors participate during their stays include sightseeing (especially wildflower and wildlife observation, photography and viewing high Cascade Range scenery), picnicking, overnight camping, huckleberry picking and hunting. From field observations, it is clear that day-use activities are preferred over those requiring an overnight stay. TRW's small size and proximity to the Willamette Valley have more to do with this than any real lack of wilderness attributes. Since TRW is a designated wilderness, use of motorized vehicles by the public is strictly prohibited, and all recreation access into the area must be by foot, horseback or other non-motorized means. While the total number of visitors participating in a particular activity may vary from year to year, changes in activity preferences are not anticipated over the 10-year management period, 1986 through 1995.

Seasons and Times of Use

The public can visit TRW year-round, but the vast majority of visitation occurs during the summer-month period mid-June through mid-September when snow accumulation at higher elevations has melted, allowing easy access to the ridgetop Trailed Zone. Summer visitation is also influenced by off-site visibility improvement and blooming of the area's abundant wildflowers. Although winter-month recreation use is minimal at this time, cross-country skiing and snowshoeing use in winter and early spring is expected to increase.

Length of Stay

At present, most visitation is day-use oriented, but overnight use is on the increase. The recent appearance of newly constructed campfire rings and increased soil/vegetation disturbance in traditionally used camp areas evidences this trend. As with other visitor information, length-of-stay data are lacking, and it is difficult to place precise durations on day versus overnight visits.

Party Size

The number of people expected to participate as a single group or party while visiting TRW is variable. Most parties which BLM staff have encountered within the area range from a solitary visitor to a small family unit of from 2 to 5 people. Larger parties exceeding 8 to 10 people often result from planned outings of local organized equestrian clubs. Their recreational livestock add to the relative "size" of these larger groups.

Place of Origin

Detailed place-of-origin data are also lacking at this time, but field contacts with visitors indicate that most people who visit TRW reside in the Willamette Valley.

Visitation

Because an intensive visitor use survey has not yet been completed for TRW, accurate estimates of annual visitation are not available. However, it is estimated that 500 people visited the area during Calendar Year 1985. This estimate is based on trailhead vehicle counts and visitor contacts within the Trailed Zone conducted several times during the primary summer-use season.

Environmental Consequences

Impacts associated with site specific project developments (such as trail construction) are not addressed in this environmental assessment. Separate environmental assessments will be prepared, on a project-by-project basis, to identify and assess impacts related to implementing the management plan.

Physiography and Landscape Character

Under the Proposed Action and other alternatives, the scenic quality of TRW would be maintained at various levels. The least amount of change to the existing landscape would occur under Alternative A and the greatest change under Alternative C. Over the long term, Alternative B would be most beneficial to scenic values because of its emphasis on resource protection through use regulation.

Alternative A would impact TRW the least in the short term. No ground-disturbing management activities would take place, use would not be regulated, and existing cultural modifications that are adversely affecting scenic quality would not be rehabilitated. However, a degradation of scenic quality caused by unregulated human activity and resource disturbance (mainly of the soil and vegetation) would be expected to occur in the long term as a result of such a low-level management plan.

Alternative C would have the greatest adverse effect on scenic quality. Increasing publicity about TRW would bring more people to the area, and use

would be unregulated. Resource disturbance (mainly of the soil and vegetation) and excessive cultural modifications (new trails and trailhead, signs within TRW boundaries, and camp sites) would degrade scenic quality.

Alternative B and the Proposed Action would benefit scenic values the most. Many existing cultural modifications would be rehabilitated, and use would be regulated. Alternative B would be more beneficial because resource disturbance (mainly of the soil and vegetation) would be minimized by the prohibition of overnight camping, recreational livestock, and campfires.

Soils

The affect of the Proposed Action or actions of the other alternatives on the soils resource is dependent on the type and amount of use allowed. In all of the management alternatives, visitor use would be generally concentrated in the Trailed Zone. Such use concentration causes soil compaction which reduces the normal infiltration rate of precipitation as well as the growth of vegetative cover. The result of this combination of effects would be increased surface water runoff and soil erosion in the heavily compacted/disturbed areas.

Alternative B would minimize soil and vegetation disturbance because of strict use regulations, while Alternatives A and C, with virtually no use regulation, would greatly increase the likelihood of soil and vegetation disturbance in concentrated use areas. Over the long term, Alternative B would be most beneficial to the soils resource because of its emphasis on resource protection through use regulation.

Water Resources

The Proposed Action, with implementation of the LAC system, would maintain TRW's existing water quality. Permanent camp areas would be prohibited within riparian habitat, recreational livestock would be held away from traditionally used camp areas, and watering facilities for recreational livestock would be developed away from the headwaters of Image Creek. These actions, along with the monitoring program, would help limit soil compaction, surface water runoff and soil erosion within riparian habitat, and reduce the chances of both human and recreational livestock wastes from directly reaching surface waters.

Alternative A, without implementation of the LAC system and in the absence of thorough monitoring and any form of use regulation, would adversely affect TRW's water quality over the long term by allowing bacteria and suspended sediment levels to increase in streams. "Hardened" camp areas would be permitted within riparian habitat, and recreational livestock would be watered or held overnight wherever visitors desire. Riparian habitat would be subjected to substantial increases in soil compaction, surface water runoff and soil erosion, and there would be no means to prevent both human and recreational livestock wastes from directly reaching surface waters.

Alternative B, with implementation of the LAC system and strict use regulation, would maintain TRW's existing water quality level with little or no degradation of the resource caused by human activity, thus benefitting water resources more than any of the other alternatives. Overnight camping and use of recreational livestock would be prohibited, thus vastly reducing the potential for user impacts within riparian habitat. Annual visitation would be limited through a visitor permit system, and TRW would not be promoted through a comprehensive public information program. As with the Proposed Action, these management actions would help limit soil compaction, surface water runoff and soil erosion within riparian habitat, and reduce the chances of human waste directly reaching surface waters.

Alternative C, even with implementation of the LAC system, would adversely affect TRW's water quality overall by allowing bacteria and suspended sediment levels to increase in streams over the long term. As with Alternative A, "hardened" camp areas would be permitted within riparian habitat, and there would be no use regulation. Substantial expansion of the developed trail system would occur, and visitation and use would be promoted through a comprehensive public information program. Riparian habitat would be subjected to substantial increases in soil compaction, surface water runoff and soil erosion, and there would be no means to prevent both human and recreational livestock waste from directly reaching surface waters.

Vegetation

The Proposed Action emphasizes resource protection as a primary goal, and under the LAC system guidelines would be implemented to monitor botanical resources. Use regulation would provide protection for botanical resources, and stabilization or rehabilitation efforts would play important roles in enhancement. Botanical inventories would be completed and analyzed, and signs would be used to inform the public on the sensitivity of botanical resources and regulate for these resources accordingly. New trails would be established,

allowing access into previously undisturbed areas while lessening pressure on vegetation where degradation has already taken place. Abandoned trails would be "put to bed," allowing vegetation to reestablish. The 80-acre non-Federal parcel would be acquired, protecting vegetation in and around this area. Information and educational plans would be developed and would be vital in aiding in the understanding and protection of botanical values in TRW.

Alternative A establishes no change from the present level of management. There would be little emphasis on the protection of botanical resources and no implementation of the LAC system, resulting in the overuse of some areas and loss of ecologically significant plant communities. Some monitoring would continue, but it would not regulate negative impacts. The uncontrolled use of recreational livestock could have extreme adverse effects on vegetation within TRW. Lack of stabilization and rehabilitation efforts on areas under stress would result in continued erosion and irreparable damage to fragile plant communities adjacent to well used areas; i.e., hiking/horseback riding trails and camping sites. Fragile plant communities are those with biological limitations to their survival in habitats that cannot be steadily altered. Lack of comprehensive information, education, and further botanical inventories would result in little awareness of the unique botanical features of TRW and could contribute to degradation of this resource. Fire management and trail maintenance would continue with positive benefits to botanical resources by noting the whereabouts of sensitive plant communities and preventing destructive alterations at these locations. Lack of new trail construction would discourage visitor access into areas that have not been impacted but would allow continued use/overuse of other possibly sensitive areas.

Alternative B emphasizes resource protection, and the LAC system would be implemented. A visitor permit system, regulating the number of visitors in the area, could lessen the amount of stress on some vegetation. The prohibition of overnight camping, open campfires, and recreational livestock would reduce pressure on fragile plant communities that are affected by soil erosion, overcollecting of wood, or repeated use of overnight camping areas, including those in sensitive riparian habitat. A prescribed fire plan would be desirable in some cases where vegetative successional stages must be controlled to extend the life of sensitive plant populations requiring that seral stage; and, fire maintenance of this sort would be limited to small areas.

Alternative C emphasizes recreational development in TRW, and the LAC system would be implemented. Botanical resources would not be given primary emphasis. The lack of a closure policy on overused campsites would increase vegetative degradation at and near these sites, and a lack of overnight camping restrictions in riparian habitat and other fragile areas would cause overuse damage on sensitive plant communities. By not acquiring the 80-acre non-Federal tract, fragile plant communities that buffer this parcel, as well as the vegetative community within it, can be altered by logging or other forest management activities. Active promotion of recreation within TRW would result in increased visitation and, without proper regulations, botanical resource would not be adequately protected. Informational signs, informing visitors of sensitive areas within TRW, would aid in user awareness and help to protect plant communities, while overuse of signs could bring unnecessary attention to sensitive areas.

Animals

Terrestrial Wildlife

The primary impact to wildlife would be disturbance of animals by increased human use. Disturbance includes untimely flushing of animals from nesting and denning sites, preventing use of feeding areas, and altering travel routes. Generally, these disturbances are not life-threatening, but rather they adversely affect the inhabitability of a particular area and reduce the number of animals expected to live there.

Some loss or modification of habitat would occur from trail construction, trampling of vegetation around camp areas, and use of down and dead vegetative material for campfires. Compared to timber harvest, these impacts to wildlife are considered low. In relationship to each other, the affect each alternative has on wildlife ranges from low to high.

The Proposed Action would have a low impact on wildlife because disturbance would be restricted to a small area (Trailed Zone), and excessive visitation would be discouraged. However, some disturbance of blue grouse nesting (adjacent to trails) and deer feeding (in meadow areas) would occur. Habitat loss or changes would be minimized. Although some new trail construction would occur, habitat losses or changes would be controlled because important wet areas and springs used by Pacific giant salamanders would be avoided during trail construction and maintenance.

Alternative A would have a moderate impact on wildlife. Although visitation may not increase as in other alternatives, use would be uncontrolled. Important habitats would not be maintained or

protected. Overnight camping would continue in and around important meadow habitat thereby preventing animals such as bobcat and great horned owls from hunting rodents and rabbits undisturbed.

Alternative B would have the lowest impact on wildlife because visitation and use would be strictly regulated. Disturbance would be short term and generally confined to the Trailed Zone. With overnight camping eliminated, use of key water sources and meadows by deer, elk, and cougar would be enhanced. Habitat loss would be minimal.

Alternative C would have the greatest impact on wildlife. Visitation would increase and be expanded into areas not otherwise available to most hikers. Disturbances would be long term and wide spread. Disturbance around sensitive habitats, particularly meadows, springs and streams would increase drastically. Sensitive species like elk, cougar, bobcat and goshawks would be continuously disturbed around important habitat. Down and dead vegetative material which provide habitat for rodents and amphibians would be completely removed in and around an increasing number of camp sites over the long term. This is the only alternative where habitat loss may be a significant factor to the wildlife resource.

Fish

None of the four alternatives would significantly affect the fishery resource.

Cultural Resources

Archeological

Under the Proposed Action, protection for site 35CL25 and other sites in TRW would be provided by the development of LAC standards for the sites, on-going assessment of the sites' conditions in relationship to the LAC system, and undertaking actions to reverse or prevent site deterioration beyond acceptable limits. The Proposed Action includes provisions to further inventory TRW for cultural site identification. Interpretation of cultural sites by direct or indirect means is one method of site protection that might be employed under the Proposed Action.

Alternative A would result in the continued deterioration of site 35CL25 and other sites as LAC standards would not be established and regular monitoring of site impacts would not be undertaken. Further inventory in this area would be a low priority and would occur only in response to ground-disturbing project proposals. No interpretation efforts specifically linked to TRW sites would be undertaken.

Alternative B would result in similar consequences as the Proposed Action, except that site deterioration and alteration would be reduced by the regulation of visitor use, by the exclusion of recreational livestock and by the prohibition of campfires and overnight camping. Monitoring activities and site protection activities would be less frequent and less extensive as visitor use would be less intensive.

Alternative C would result in an increase in visitor impacts, direct and indirect, by the encouragement of visitor use, camping, and trail system expansion. The increased human occupation, quantitatively and qualitatively, would result in more artifact collection, purposeful and incidental site excavation and acceleration of site deterioration. More frequent monitoring would be necessary and more site protection activities would be required, if disturbance or destruction of cultural sites is to be avoided. Site interpretation opportunities would be utilized with both on-site signing and off-site information dissemination being undertaken.

Historical

No direct impacts to historical sites are anticipated as a result of any of the alternatives or of the Proposed Action. Degradation of the trail system itself would occur in response to an increase or decrease in visitor use.

Indirect adverse impacts could result to the Peachuck Lookout site adjacent to TRW from implementation of the Proposed Action, Alternative A or Alternative C. This historic site would receive increased visitation as visitor use increases in TRW. If such visitation results in vandalism, remedial actions would be necessary. The frequency of monitoring and likelihood for remedial action would increase with Alternative C. Interpretation of the lookout and of Copper Creek Bridge to enhance the recreation experience of visitors has an increased possibility of occurrence under Alternative C.

Recreation

People visit TRW for very different reasons. The degree to which the Proposed Action and the other three alternatives would either beneficially or adversely affect visitors depends on the management actions involved. An action which tends to benefit visitors seeking one form of recreation may adversely affect visitors seeking other opportunities, since recreation use requirements and expectations vary so greatly from one user group to the next.

Generally, recreation opportunities within TRW can be separated into three fairly broad categories for purposes of evaluating environmental consequences. Category 1 is "resource-centered" opportunities, Category 2 is "challenge-centered" opportunities and Category 3 is "facility-centered" opportunities. For many, TRW offers visitors a chance to participate in recreation activities which depend almost exclusively on the condition of the area's natural and scenic resources. Wildflower and wildlife observation, photography, huckleberry picking and viewing backcountry scenery are examples of these "resource-centered" opportunities. For other visitors, TRW is a good place to pursue backcountry solitude and physically challenging recreation activities. Cross-country hiking, rock climbing and big game hunting are examples of these "challenge-centered" opportunities. Yet for others, TRW is visited not only because of its natural and scenic attributes, but because it is convenient and easily accessible. High standard access roads deliver visitors to TRW's doorstep, and developed trailheads and trail systems are almost a prerequisite for visitation. Horseback riding, day hiking, backpacking, ski touring and snowshoeing are examples of these "facility-centered" opportunities.

Figure 12 shows, for each of the three broad recreation opportunity categories, whether a management alternative would provide more, less or no change in opportunities for visitors to participate in activities of their choice than are presently available, and how each management alternative would tend to either attract or deter visitation if implemented.

While a discussion of all possible combinations of effects of the management alternatives on recreation opportunities and visitation across all categories is not practical, an illustrative example for each alternative should serve to augment interpretation of Figure 12.

Example 1. If TRW were to be managed under the Proposed Action, the existing trail system would be improved by relocating sections of trail which are too steep and in substandard condition. By improving the trail system to state-of-the-art specifications, there would be more Category 3 opportunities ("facility-centered") provided because access to the headwaters area of Image Creek would become available to many hikers and horseback riding visitors who were previously not willing to risk the hazards and uncertainty of an excessively steep, rugged trail. The useable portion of the Trailed Zone would become total. On the other hand, however, there would be less Category 2 opportunities ("challenge-centered") provided because a substantial area which had previously been difficult to reach would be accessible to everyone. Both challenge and opportunity for solitude would be reduced. The Proposed Action would tend to attract more visitors looking for "facility-centered" opportunities and deter visitors who wish to pursue "challenge-centered" opportunities.

Example 2. If TRW were to be managed under Alternative A, the Limits of Acceptable Change (LAC) system would not be developed and implemented. In the absence of specific LAC standards for soil, water, vegetation, fish and wildlife, cultural and recreation wilderness elements, TRW's physical/biological and social conditions would decline over the long term, particularly in the Trailed Zone. There would be less Category 1 opportunities ("resource-centered") provided because unregulated visitation in the Trailed Zone would be deleterious to the area's natural values, especially those related to soil, vegetation, water, and scenic resources. For the most part, Category 2 and 3 opportunities ("challenge-centered" and "facility-centered," respectively) would change little from that now provided since Category 2 opportunities would be primarily Trailless-zone specific and generally unaffected, and Category 3

Figure 12 Effects of Planning Alternatives on Recreation Opportunities and Visitation

Management Alternative	Recreation Opportunities					
	Category 1 ("resource-centered")		Category 2 ("challenge-centered")		Category 3 ("facility-centered")	
	Effect	Visitation	Effect	Visitation	Effect	Visitation
Proposed Action	more	attract	less	deter	more	attract
A	less	deter	no change	attract	no change	deter
B	more	attract	more	attract	less	deter
C	less	deter	less	deter	more	attract

visitors would be more accepting of increased visitation and social contact in the Trailed Zone. Alternative A would tend to attract more visitors looking for "challenge-centered" opportunities and deter visitors who wish to pursue "resource-centered" and "facility-centered" opportunities.

Example 3. If TRW were to be managed under Alternative B, overnight camping would be prohibited, visitors would not be allowed to bring recreational livestock into the area and use would be regulated through a visitor permit system. There would be more Category 1 and 2 opportunities ("resource-centered" and "challenge-centered," respectively) provided because strict use regulation would augment resource protection efforts and maintain conditions necessary for visitor solitude and challenge. On the other hand, there would be less Category 3 opportunities ("facility-centered") provided because of the limitations set on visitation and participation in certain activities. Alternative B would tend to attract more visitors looking for "resource-centered" and "challenge-centered" opportunities and deter visitors who wish to pursue "facility-centered" opportunities.

Example 4. If TRW were to be managed under Alternative C, additional mid-slope trails would be constructed. There would be more Category 3 opportunities ("facility-centered") provided because the added trail mileage would allow access into areas of TRW where visitors dependent on developed trails could not previously go. Obviously, there would be less Category 2 opportunities ("challenge-centered") provided because of the encroachment new trail development would create on the Trailless Zone, where solitude and challenging situations predominate. Alternative C would tend to attract more visitors looking for "facility-centered" opportunities and deter visitors who wish to pursue "challenge-centered" and "resource-centered" opportunities.

Part IX
Cost Estimates

Figure 13 shows cost estimates for the planned wilderness management program through the 10-year period FY 1986 through FY 1995. All actions listed in Part VI are scheduled for implementation at some time during this management period (see Part VII Implementation Sequence). While additional planning, survey and design, and/or construction will be necessary to fully implement many of the planned actions, others can be implemented with relatively little or no prerequisite work or cost. All estimates are based on 1986 labor, materials and equipment costs.

Figure 13 Cost Estimates for Planned Wilderness Management Program, FY 1986-1995

Action	Estimated Implementation Costs by Fiscal Year										Total Estimated Costs
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
• LAC standards development	7,500										7,500
• Resource inventory/survey/ data collection		5,000	10,000	1,200	1,200	1,200	1,200	1,200	1,200	1,200	23,400
• Resource stabilization/ rehabilitation/protection			5,000	10,000							15,000
• Resource monitoring	5,000	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	27,500
• Planning											
• Management plan	7,500										7,500
• Management plan revision/modification			1,200		1,200		1,200		1,200		4,800
• Comprehensive plans	1,200	1,200									2,400
• Project plans			10,000								10,000
• Facility development	1,200	2,000	100,000	4,000		1,200		1,200		1,200	110,800
• Facility maintenance	1,200	2,500	2,500	4,000	4,000	4,000	4,000	4,000	4,000	4,000	34,200
• Land acquisition				25,000							25,000
• Use authorization			2,500		2,500		2,500		2,500		10,000
• Training	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	12,000
• Public relations	1,200	1,200	2,500	1,200	2,500	1,200	2,500	1,200	2,500	1,200	17,200
• General administration	2,500	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	47,500
Fiscal Year Totals	**28,500**	**20,600**	**142,400**	**54,100**	**20,100**	**16,300**	**20,100**	**16,300**	**20,100**	**16,300**	**354,800**

Appendices

Appendix A
Oregon Wilderness Act of 1984

Public Law 98-328
98th Congress

An Act

June 26, 1984
[H.R. 1149]

To designate certain national forest system and other lands in the State of Oregon for inclusion in the National Wilderness Preservation System, and for other purposes.

Oregon Wilderness Act of 1984
National Wilderness Preservation System
National Forest System

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be referred to as the "Oregon Wilderness Act of 1984".

SEC. 2. (a) The Congress finds that—

(1) many areas of undeveloped National Forest System land in the State of Oregon possess outstanding natural characteristics which give them high value as wilderness and will, if properly preserved, contribute as an enduring resource of wilderness for the benefit of the American people;

(2) the Department of Agriculture's second roadless area review and evaluation (RARE II) of National Forest System lands in the State of Oregon and the related congressional review of such lands have identified areas which, on the basis of their landform, ecosystem, associated wildlife, and location, will help to fulfill the National Forest System's share of a quality National Wilderness Preservation System; and

(3) the Department of Agriculture's second roadless area review and evaluation of National Forest System lands in the State of Oregon and the related congressional review of such lands have also identified areas which do not possess outstanding wilderness attributes or which possess outstanding energy, mineral, timber, grazing, dispersed recreation and other values and which should not now be designated as components of the National Wilderness Preservation System but should be available for nonwilderness multiple uses under the land management planning process and other applicable laws.

(b) The purposes of this Act are to—

(1) designate certain National Forest System lands and certain public lands in the State of Oregon as components of the National Wilderness Preservation System, in order to promote, perpetuate, and preserve the wilderness character of the lands, protect watersheds and wildlife habitat, preserve scenic and historic resources, and promote scientific research, primitive recreation, solitude, physical and mental challenge, and inspiration for the benefit of all the American people, to a greater extent than is possible in the absence of wilderness designation; and

(2) insure that certain other National Forest System lands in the State of Oregon be available for nonwilderness multiple use.

16 USC 1131 note

SEC. 3. In furtherance of the purpose of the Wilderness Act the following lands in the State of Oregon comprising approximately eight hundred fifty-nine thousand six hundred acres and as generally depicted on maps appropriately referenced, dated May 1984; are hereby designated as wilderness, and therefore, as components of the National Wilderness Preservation System—

(1) certain lands in the Mount Hood National Forest, which comprise approximately thirty-nine thousand acres, are generally depicted on a map entitled "Columbia Wilderness—Proposed", and which shall be known as the Columbia Wilderness; 16 USC 1132 note.

(2) certain lands in the Mount Hood National Forest, which comprise approximately forty-four thousand six hundred acres, are generally depicted on a map entitled "Salmon-Huckleberry Wilderness—Proposed", and which shall be known as the Salmon-Huckleberry Wilderness; 16 USC 1132 note.

(3) certain lands in the Mount Hood National Forest, which comprise approximately twenty-four thousand acres, are generally depicted on a map entitled "Badger Creek Wilderness—Proposed", and which shall be known as the Badger Creek Wilderness; 16 USC 1132 note.

(4) certain lands in the Mount Hood National Forest and the Willamette National Forest, which comprise approximately thirty-four thousand nine hundred acres, are generally depicted on a map entitled "Bull of the Woods Wilderness—Proposed", and which shall be known as the Bull of the Woods Wilderness; 16 USC 1132 note.

(5) certain lands in the Siuslaw National Forest, which comprise approximately five thousand eight hundred acres, are generally depicted on a map entitled "Drift Creek Wilderness—Proposed", and which shall be known as the Drift Creek Wilderness; 16 USC 1132 note.

(6) certain lands in the Siuslaw National Forest, which comprise approximately seven thousand four hundred acres, are generally depicted on a map entitled "Rock Creek Wilderness—Proposed", and which shall be known as the Rock Creek Wilderness; 16 USC 1132 note.

(7) certain lands in the Siuslaw National Forest, which comprise approximately nine thousand three hundred acres, are generally depicted on a map entitled "Cummins Creek Wilderness—Proposed", and which shall be known as the Cummins Creek Wilderness; 16 USC 1132 note.

(8) certain lands in the Umpqua National Forest, which comprise approximately nineteen thousand one hundred acres, are generally depicted on a map entitled "Boulder Creek Wilderness—Proposed", and which shall be known as the Boulder Creek Wilderness; 16 USC 1132 note.

(9) certain lands in the Umpqua and Rogue River National Forests, which comprise approximately thirty-three thousand two hundred acres, are generally depicted on a map entitled "Rogue-Umpqua Divide Wilderness—Proposed", and which shall be known as the Rogue-Umpqua Divide Wilderness; 16 USC 1132 note.

(10) certain lands in the Willamette National Forest, which comprise approximately thirty-nine thousand two hundred acres, are generally depicted on a map entitled "Waldo Lake Wilderness—Proposed", and which shall be known as the Waldo Lake Wilderness; 16 USC 1132 note.

(11) certain lands in the Willamette National Forest, which comprise approximately four thousand eight hundred acres, are generally depicted on a map entitled "Menagerie Wilderness—Proposed", and which shall be known as the Menagerie Wilderness; 16 USC 1132 note.

(12) certain lands in the Willamette National Forest, which comprise approximately seven thousand five hundred acres, are generally depicted on a map entitled "Middle Santiam Wilder- 16 USC 1132 note.

ness—Proposed", and which shall be known as the Middle Santiam Wilderness;

16 USC 1132 note

(13) certain lands in the Siskiyou National Forest which comprise approximately seventeen thousand two hundred acres, are generally depicted on a map entitled "Grassy Knob Wilderness—Proposed", and which shall be known as the Grassy Knob Wilderness;

16 USC 1132 note

(14) certain lands in the Siskiyou National Forest, which comprise approximately three thousand four hundred acres, are generally depicted on a map entitled "Red Buttes Wilderness—Proposed", and which shall be known as the Red Buttes Wilderness;

16 USC 1132 note

(15) certain lands in the Rogue River and Winema National Forests, which comprise approximately one hundred sixteen thousand three hundred acres, are generally depicted on a map entitled "Sky Lake Wilderness—Proposed", and which shall be known as the Sky Lakes Wilderness;

16 USC 1132 note

(16) certain lands in the Ochoco National Forest, which comprise approximately five thousand four hundred acres, are generally depicted on a map entitled "Bridge Creek Wilderness—Proposed", and which shall be known as the Bridge Creek Wilderness;

16 USC 1132 note

(17) certain lands in the Ochoco National Forest, which comprise approximately seventeen thousand four hundred acres, are generally depicted on a map entitled "Mill Creek Wilderness—Proposed", and which shall be known as the Mill Creek Wilderness;

16 USC 1132 note

(18) certain lands in the Ochoco National Forest which comprise approximately thirteen thousand four hundred acres, are generally depicted on a map entitled "Black Canyon Wilderness—Proposed", and which shall be known as the Black Canyon Wilderness;

16 USC 1132 note

(19) certain lands in the Wallowa-Whitman and Umatilla National Forests, which comprise approximately one hundred twenty-one thousand four hundred acres, are generally depicted on a map entitled "North Fork John Day Wilderness—Proposed", and which shall be known as the North Fork John Day Wilderness;

16 USC 1132 note

(20) certain lands in the Umatilla National Forest, which comprise approximately twenty thousand two hundred acres, are generally depicted on a map entitled "North Fork Umatilla Wilderness—Proposed", and which shall be known as the North Fork Umatilla Wilderness;

16 USC 1132 note

(21) certain lands in the Malheur and Wallowa-Whitman National Forests, which comprise approximately nineteen thousand eight hundred acres, are generally depicted on a map entitled "Monument Rock Wilderness—Proposed", and which shall be known as the Monument Rock Wilderness;

16 USC 1132 note

(22) certain lands located in the Salem District of the Bureau of Land Management, Oregon, which comprise approximately five thousand five hundred acres, as generally depicted on a map entitled "Table Rock Wilderness—Proposed", and which shall be known as the Table Rock Wilderness;

(23) certain lands in the Willamette and Mount Hood National Forests, which comprise approximately six thousand eight hundred acres, are generally depicted on a map entitled "Mount Jefferson Wilderness Additions—Proposed", and which

are hereby incorporated in, and which shall be deemed to be a part of, the Mount Jefferson Wilderness as designated by Public Law 88-577;

16 USC 1131 note.

(24) certain lands in the Willamette and Deschutes National Forests, which comprise approximately six thousand four hundred acres, are generally depicted on a map entitled "Mount Washington Wilderness Additions—Proposed", and which are hereby incorporated in, and which shall be deemed to be part of, the Mount Washington Wilderness as designated by Public Law 88-577;

(25) certain lands in the Willamette and Deschutes National Forests which comprise approximately thirty-eight thousand one hundred acres, are generally depicted on a map entitled "Three Sisters Wilderness Additions—Proposed", and which are hereby incorporated in, and which shall be deemed to be a part of, the Three Sisters Wilderness as designated by Public Laws 88-577 and 95-237;

16 USC 1131 note, 1132 note.

(26) certain lands in the Fremont National Forest which comprise approximately four thousand one hundred acres, are generally depicted on a map entitled "Gearhart Mountain Wilderness Additions—Proposed", and which are hereby incorporated in, and which shall be deemed to be a part of, the Gearhart Mountain Wilderness as designated by Public Law 88-577;

(27) certain lands in the Malheur National Forest which comprise approximately thirty-five thousand three hundred acres, are generally depicted on a map entitled "Strawberry Mountain Wilderness Additions—Proposed", and which are hereby incorporated in, and which shall be deemed a part of, the Strawberry Mountain Wilderness as designated by Public Law 88-577;

(28) certain lands in the Wallowa-Whitman National Forest which comprise approximately sixty-six thousand five hundred acres, are generally depicted on a map entitled "Eagle Cap Wilderness Additions—Proposed", and which are hereby incorporated in, and which shall be deemed to be a part of, the Eagle Cap Wilderness as designated by Public Laws 88-577 and 92-521;

16 USC 1131 note. 86 Stat. 1026.

(29) certain lands in the Wallowa-Whitman National Forest, which comprise approximately twenty-two thousand seven hundred acres, are generally depicted on a map entitled "Hells Canyon Wilderness Additions—Proposed", and which are hereby incorporated in, and which shall be deemed to be part of, the Hells Canyon Wilderness as designated in Public Law 94-199.

16 USC 460gg.

SEC. 4. (a) In order to conserve, protect, and manage, in a substantially undeveloped condition, certain National Forest System lands in the State of Oregon having unique geographic, topographic, biological, ecological features and possessing significant scenic, wildlife, dispersed recreation, and watershed values, there is hereby established, within the Umpqua, Willamette, Winema and Deschutes National Forests, the Oregon Cascades Recreation Area (hereinafter referred to in this Act as the "recreation area").

Conservation. 16 USC 460ggg.

(b) The recreation area shall comprise approximately one hundred fifty-six thousand nine hundred acres as generally depicted on a map entitled "Oregon Cascades Recreation Area" dated March 1984. Except as otherwise provided in this section, the Secretary of Agri-

culture (hereinafter referred to as the "Secretary") shall administer and manage the recreation area in accordance with the laws and regulations applicable to the National Forest System so as to enhance scenic and watershed values, wildlife habitat, and dispersed recreation.

(c) The recreation area shall be managed in accordance with plans prepared in subsection (g) to:

(1) provide a range of recreation opportunities from primitive to full service developed campgrounds;

(2) provide access for use by the public;

(3) to the extent practicable, maintain the natural and scenic character of the area; and

(4) provide for the use of motorized recreation vehicles.

Mines and mining

(d)(1) Subject to valid existing rights, all mining claims located within the recreation area shall be subject to such reasonable regulations as the Secretary may prescribe to insure that mining activities will, to the maximum extent practicable, be consistent with the purposes for which the recreation area is established. Any patent issued after the date of enactment of this Act shall convey title only to the minerals together with the right to use the surface of lands for mining purposes subject to such reasonable regulations as the Secretary shall prescribe.

(2) Effective January 1, 1989, and subject to valid existing rights, the lands located within the recreation area are hereby withdrawn from all forms of appropriation under the mining laws and from disposition under all laws pertaining to the mineral leasing and geothermal leasing and all amendments thereto.

(e) Within the recreation area, the Secretary may permit, under appropriate regulations those limited activities and facilities which he determines necessary for resource protection and management and for visitor safety and comfort, including--

(1) those necessary to prevent and control wildfire, insects, diseases, soil erosion, and other damaging agents including timber harvesting activities necessary to prevent catastrophic mortality from insects, diseases or fire;

(2) those necessary to maintain or improve wildlife habitat, water yield and quality, forage production, and dispersed outdoor recreation opportunities;

(3) livestock grazing, to the extent that such use will not significantly adversely affect the resources of the recreation area;

(4) salvage of major timber mortality caused by fire, insects, disease, blowdown, or other causes when the scenic characteristics of the recreation area are significantly affected, or the health and safety of the public is threatened, or the overall protection of the forested area inside or outside the recreation area might be adversely affected by failure to remove the dead or damaged timber;

(5) those developments or facilities necessary for the public enjoyment and use of the recreation area, when such development or facilities do not detract from the purposes of the recreation area; and

(6) public service land occupancies, including power transmission lines, provided there is no feasible alternative location, and, the Secretary finds that it is in the public interest to locate such facilities within the recreation area.

(f) The following lands within the recreation area are hereby designated as wilderness and therefore as components of the National Wilderness Preservation System, and shall, notwithstanding any other provisions of this section, be administered by the Secretary in accordance with the applicable provisions of the Wilderness Act: Certain lands in the Umpqua, Willamette, and Winema National Forests which comprise approximately fifty-five thousand one hundred acres, are generally depicted on a map dated March 1984, entitled "Mount Thielsen Wilderness—Proposed", and which shall be known as the Mount Thielsen Wilderness; and certain lands in the Willamette and Deschutes National Forests, which comprise approximately fifteen thousand seven hundred acres, are generally depicted on a map dated March 1984, entitled "Diamond Peak Wilderness Additions—Proposed", and which are hereby incorporated in, and which shall be deemed to be a part of, the Diamond Peak Wilderness as designated in Public Law 88-577. 16 USC 1132 note

(g) Management direction for the recreation area shall be developed in either the forest plans developed for the Umpqua, Winema, Deschutes and Willamette Forests in accordance with section 6 of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, or in an integrated management plan that shall be prepared within three years from the date of enactment of this Act and revised in accordance with the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended. Any plan developed by the Secretary for the recreation area shall identify and designate specific and appropriate areas and routes for the use of motorized recreation vehicles within the recreation area. 16 USC 1131 note. Plans. 16 USC 1604 16 USC 1600 note

SEC. 5. (a) As soon as practicable after this Act takes effect, the appropriate Secretary shall file the maps referred to in sections 3 and 4 of this Act and legal descriptions of each wilderness area designated by sections 3 and 4 of this Act with the Committee on Energy and Natural Resources, United States Senate, and the Committee on Interior and Insular Affairs, House of Representatives, and each such map and legal description shall have the same force and effect as if included in this Act: *Provided,* That correction of clerical and typographical errors in such legal descriptions and maps may be made. Each such map and legal description shall be on file and available for public inspection in the Office of the Chief of the Forest Service, Department of Agriculture; and the Director, Bureau of Land Management, Department of the Interior. 16 USC 460ss note. Public availability

(b) Subject to valid existing rights, each wilderness area designated by sections 3 and 4 of this Act shall be administered by the appropriate Secretary in accordance with the provisions of the Wilderness Act of 1964 governing areas designated by that Act as wilderness areas, except that, with respect to any areas designated in sections 3 and 4 of this Act, any reference in such provisions to the effective date of the Wilderness Act of 1964 shall be deemed to be a reference to the effective date of this Act, and any reference to the Secretary of Agriculture shall be deemed to be a reference to the Secretary who has administrative jurisdiction over the area. 16 USC 1131 note

SEC. 6. Congress does not intend that designation of wilderness areas in the State of Oregon lead to the creation of protective perimeters or buffer zones around each wilderness area. The fact that nonwilderness activities or uses can be seen or heard from the areas within the wilderness shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area.

SEC. 7. (a) The Congress finds that—

(1) the Department of Agriculture has completed the second roadless area review and evaluation program (RARE II);

(2) the Congress has made its own review and examination of National Forest System roadless areas in Oregon and the environmental impacts associated with alternative allocations of such areas.

Congress.

(b) On the basis of such review, the Congress hereby determines and directs that—

(1) without passing on the question of the legal and factual sufficiency of the RARE II final environmental statement (dated January 1979) with respect to national forest lands in States other than Oregon, such statement shall not be subject to judicial review with respect to National Forest System lands in the State of Oregon;

(2) with respect to the National Forest System lands in the State of Oregon which were reviewed by the Department of Agriculture in the second roadless area review and evaluation (RARE II), and those lands referred to in subsection (d), except those lands remaining in further planning or special management pursuant to section 4 of this Act upon enactment of this Act, that review and evaluation or reference shall be deemed for the purpose of the initial land management plans required for such lands by the Forest and Rangeland Renewable Resources Planning Act of 1974 as amended by the National Forest Management Act of 1976, to be an adequate consideration of the suitability of such lands for inclusion in the National Wilderness Preservation System and the Department of Agriculture shall not be required to review the wilderness option prior to the revision of the plans, but shall review the wilderness options when the plans are revised, which revisions will ordinarily occur on a ten-year cycle, or at least every fifteen years, unless, prior to such time the Secretary of Agriculture finds that conditions in a unit have significantly changed;

16 USC 1600 note.
16 USC 1600 note.

(3) areas in the State of Oregon reviewed in such final environmental statement or referenced in subsection (d) and not designated as wilderness or for special management pursuant to section 4 of this Act or remaining in further planning upon enactment of this Act shall be managed for multiple use in accordance with land management plans pursuant to section 6 of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976: *Provided*, That such areas need not be managed for the purpose of protecting their suitability for wilderness designation prior to or during revision of the land management plans;

16 USC 1604.

(4) in the event that revised land management plans in the State of Oregon are implemented pursuant to section 6 of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended by the National Forest Management Act of 1976, and other applicable law, areas not recommended for wilderness designation, need not be managed for the purpose of protecting their suitability for wilderness designation prior to or during revision of such plans, and areas recommended for wilderness designation shall be managed for the purpose of protecting their suitability for wilderness designation as may be required by the Forest and Rangeland Renewable Resources

16 USC 1604.

Planning Act of 1974, as amended by the National Forest Management Act of 1976, and other applicable law; and 16 USC 1600 note

(5) unless expressly authorized by Congress, the Department of Agriculture shall not conduct any further statewide roadless area review and evaluation of National Forest System lands in the State of Oregon for the purpose of determining their suitability for inclusion in the National Wilderness Preservation System. 16 USC 1600 note

(c) As used in this section, and as provided in section 6 of the Forest and Rangeland Renewable Resources Planning Act of 1974 as amended by the National Forest Management Act of 1976, the term "revision" shall not include an "amendment" to a plan. 16 USC 1604

(d) The provisions of this section shall also apply to:

(1) those National Forest System roadless lands in the Mount Hood, Siskiyou, Umatilla, Umpqua, Wallowa-Whitman, Willamette, and Winema National Forests in the State of Oregon which were evaluated in the Eagle Creek; Roaring River; Mount Butler-Dry Creek; Oregon Butte; Cougar Bluff-Williams Creek; Grand Ronde; Wallowa Valley; Willamette; or Chemult unit plans; and

(2) National Forest System roadless lands in the State of Oregon which are less than five thousand acres in size.

SEC. 8. Subject to valid existing rights, the Federal lands within the Mill Creek watershed roadless area identified in the Oregon Butte Unit Plan, which is located in Wallowa and Umatilla Counties in Oregon, are hereby withdrawn from all forms of location, entry, and patent under the United States mining laws and from disposition under all laws pertaining to mineral leasing and all amendments thereto. Mines and mining

Approved June 26, 1984.

LEGISLATIVE HISTORY—H.R. 1149:

HOUSE REPORT No. 98-13, Pt. 1 (Comm. on Interior and Insular Affairs).
SENATE REPORT No. 98-465 (Comm. on Energy and Natural Resources).
CONGRESSIONAL RECORD:
Vol. 129 (1983): Mar. 21, considered and passed House.
Vol. 130 (1984): May 24, considered and passed Senate, amended.
June 4, 6, House concurred in Senate amendments.

Appendix B
Table Rock Wilderness Fire Management Plan

Introduction

This plan will provide direction and guidance to BLM managers and Oregon State Department of Forestry (OSDF) fire protection personnel.

Management Objective

- To suppress any wildfire, regardless of cause, and employ suppression techniques which result in the least amount of resource or surface disturbance.

The rationale for this objective is that Table Rock Wilderness (TRW) is small and bordered by private and BLM timberland with a greater fire hazard, due to logging, than the pristine wilderness forest. In fact, because of the developed road system surrounding the area, a wildfire in TRW would never be more than one mile from the designated boundary. Because of this and the very infrequent role fire plays in the ecosystem of this area, wildfires must be suppressed.

Fire History

Historical information on fire occurrence within TRW is limited. Available records indicate that no wild fires have occurred in the area during the last 30 years. We can assume from this and research on western Oregon fire history, that high intensity, stand-terminating fires occur at intervals of between 100-250 plus years. The present stand within TRW resulted from a major fire that swept through the area in 1868. Only remnants of the previous stand have survived. This conflagration affected thousands of acres in the Molalla River drainage from 1,000 feet elevation to over 4,000 feet. Old-growth forests were destroyed and second-growth Douglas-fir forests succeeded, although at higher elevations there is a significant amount of western hemlock and noble fir.

Natural Role of Fire

Climatic conditions are characterized by cool, wet weather for most of the year which results in a low fire frequency. Fires that do occur are either very small (less than 1 acre) or large conflagrations, as previously mentioned, and may occur at intervals of 100-250 plus years. These large fires are generally associated with extreme weather conditions (i.e., drought coupled with hot, dry, east wind episodes). They are often stand-replacement fires that remove a near-climax forest and replace it via succession with young, even-aged forests. There is sketchy evidence in western Oregon forest types, similar to those found in TRW, that low intensity wildfires resembling prescription underburning did occur. The extent and frequency of those low-intensity fires is not well documented at this time, but probably did not equal the frequency and size of those we commonly associate with drier forest types such as ponderosa pine.

Fire Prevention and Detection

The OSDF, under contract with BLM for fire protection, will be responsible for fire prevention activities. However, to avoid redundant patrols and other actions, BLM—OSDF cooperation and coordination is necessary. Generally, the OSDF will advise the BLM of fire hazard conditions and restrictions on visitor use. In accord with the 1952 Forestland Fire Protection agreement, as amended, the OSDF will establish fire-related use restrictions, post prevention notices and regulations and patrol lands outside TRW boundaries. Fire detection efforts and methods established for the lands protected by the OSDF are adequate for detection of fire within TRW.

During periods of very high and extreme fire danger (burning index of about 70 and above), an absolute closure that prevents all but essential activities may be imposed. Restrictions on use will be imposed as necessary. Most fires in the Molalla River/TRW area are reported by the forest-using public. The OSDF regularly patrols the area during fire season, employs detection flights and operates the High Camp Lookout (three miles northwest of Table Rock) when the burning index reaches about 45 and above. Low-level detection flights (less than 1,000 feet) will not be allowed over TRW unless there is reason to suspect a wildfire.

BLM will be responsible for fire prevention and regulation enforcement within TRW. A BLM trail patrol will be established when the BLM and/or the OSDF determine it is necessary.

Fire Behavior

Predicted fire behavior of an area is based primarily on three factors: weather, topography, and fuel type. Under the National Fire Danger Rating System, the vegetation and fuels within TRW can be classified into one major type, Fuel Model H (some areas would fall into hardwood and grass types and represent only a small portion of the total area). Fuel Model H is characterized by a healthy conifer overstory, light undergrowth with light fuel loadings consisting of litter, windthrows and scattered concentrations of heavier debris.

A fire in this fuel type would be a low-intensity ground fire with occasional flareups. Rates of spread would be two chains per hour or less under normal summer weather conditions, and flame lengths would be less than two feet. Only under severe weather conditions, primarily east winds, would a fire within TRW pose a great hazard. During these east wind episodes, fire behavior would likely be erratic with high rates of spread and long-range spotting.

Fire Suppression

Immediate fire suppression action will be taken on all wildfires. OSDF response will be planned and executed to cause minimal environmental damage. No engines, trucks, tractors or any motorized vehicles will be allowed within the TRW boundaries. Fire lines and fuel breaks will be no larger than necessary and will be rehabilitated at BLM direction as soon as possible by BLM and/or OSDF personnel. Burning trees and snags will be felled only when they are a definite threat to firefighter safety or may fall across an established fireline. All fire equipment, material and litter will be removed from TRW, and the area will be restored to as near a natural condition as possible.

Motorized pumps, saws, etc., may be used as well as helicopters and fixed-wing aircraft for retardant drops. Natural helispots will be identified and landing restricted to them unless fire conditions warrant helispot construction. Helispot construction will be done with minimal environmental impact and only with BLM concurrence.

BLM will be notified of a fire in the wilderness or threatening the wilderness at the time of initial dispatch so that a resource or wilderness advisor can be assigned at the discretion of the BLM.

Smoke Management

For the foreseeable future, TRW's designation as a component of the National Wilderness Preservation System will have no effect on smoke management.

Effects on Adjacent Landowners

Since fire detection and suppression will be, in essence, the same on all lands, wilderness and non-wilderness alike, this fire management plan will have little, if any, effect on adjacent landowners. However, if wilderness designation significantly increases public use in the Molalla River drainage, the risk of fire on lands along the access route may increase. These are mostly private lands.

Salem District Manager
Bureau of Land Management

Date

State Forester
Oregon State Department of Forestry

Date

Appendix C

Environmental Assessment Preparers and Contributors

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